
The backcountry of Denali National Park and Preserve includes the entire park, except for the development sub-areas delineated in the 1997 “Entrance Area and Road Corridor Development Concept Plan.” During winter months, the backcountry also includes any portion of the road corridor not open to public vehicle traffic.

Chapter Two: Alternatives, Including the Proposed Action

Overview

This section describes five alternatives for managing the backcountry of Denali National Park and Preserve. The National Park Service developed a range of alternatives based on park purposes and public concerns. Each alternative represents a distinct vision for the park’s backcountry. These alternatives are described in a series of topics related to management area designation, recreational activities, and administrative activities.

Existing laws and policies will guide the implementation strategy for the plan, and progress will be evaluated by using appropriate indicators and standards. The matrices at the end of this section summarize management direction for each backcountry unit by topic and alternative. Plan implementation will require additional research and resource monitoring, funding, and staffing. Some actions will require additional environmental review and public involvement. Special regulations may also be needed, depending on the alternative selected.

Development of the Alternatives

The backcountry of Denali National Park and Preserve includes the entire park, except for the development sub-areas delineated in the 1997 *Entrance Area and Road Corridor Development Concept Plan*. During winter months, the backcountry also includes any portion of the road corridor not open to public vehicle traffic. The National Park Service developed the alternatives for backcountry management based on the legal, regulatory, and policy direction provided in chapter 1, combined with resource and use information and concerns gathered by research in the park and at public scoping sessions (see Chapter 5 on Consultation and Coordination).

This plan is intended to guide backcountry management for 10-15 years. Because of this long timeline, the National Park Service made an effort not only to address the specific issues and concerns of today, but to craft alternatives that provide sufficient general guidance future managers could use to address concerns arising during the life of the plan. Among other topics, the section Actions Common to All Action Alternatives addresses some of the underlying approaches the National Park Service would use to manage the Denali backcountry under any of the action alternatives, including guidance on management area designations, permits and registration, and guided activities and commercial services.

The five alternatives outlined in this section include a no-action alternative and four action alternatives. Each management alternative represents a vision for the future character of the Denali backcountry that is distinct from the other alternatives. The National Park Service believes each alternative is consistent with direction provided by law and policy; the alternatives differ only in the degree to which they emphasize particular values for which the park was established. The action alternatives fall roughly along a spectrum. Experiential values related to wilderness character – typically defined by opportunities for solitude, to hear natural sounds, to explore with minimal guidance, and to encounter wildlife undisturbed in its native habitat – are at one end of the spectrum. Values related to recreational opportunity in a wilderness context including diversity of opportunities, more options for access, and more supportive services and infrastructure are at the other end.

Alternative D has been selected as the preferred alternative based on an analysis of impacts; however, any one of the alternatives described in this section could be selected as the final proposed action for implementation. The final action will most likely include a mix of elements from two or more alternatives.

Current and projected conditions under Alternative A provide a baseline for evaluating the changes and impacts of the other action alternatives.

Each of the five alternatives is described thoroughly in the sections below through the following topics.

Wilderness Management	Guided Activities and Commercial Services
Registration and Permits	<ul style="list-style-type: none">Commercial Uses GeneralAirplane LandingsHikingBicycle TouringSport Hunting
Management Areas	Facilities
Management Area Designations	<ul style="list-style-type: none">TrailsInformation Facilities, Shelters, and Campsites
General and Non-Commercial Activities	Administration
<ul style="list-style-type: none">Overnight CampingAirplane LandingsAircraft OverflightsSnowmobilesHikingClimbing and MountaineeringNon-Motorized Winter ActivitiesBicycle UseBoatingPack Animals	<ul style="list-style-type: none">NPS Administration and Research
	Easements and Boundary Adjustments
	<ul style="list-style-type: none">EasementsLand Exchanges
	Wilderness Suitability Review

ALTERNATIVE A-NO-ACTION ALTERNATIVE

Current and projected conditions under this alternative provide a baseline for evaluating the changes and impacts of the other action alternatives. The National Park Service would continue the present management direction, guided by the 1986 *General Management Plan*, the 1997 *Entrance Area and Road Corridor Development Concept Plan*, the 1997 *South Side Denali Development Concept Plan*, the 1997 *Strategic Plan*, and backcountry management plans from 1976 and 1983. Recreational use and access patterns would continue to develop, and the agency would respond as necessary on a case-by-case basis. No new services or facilities would be developed to meet increased levels of use in the backcountry, except for those identified in the Entrance Area or South Side plans.

This alternative represents “no action” on this plan. It does not imply that the National Park Service would take no further management action concerning the park’s backcountry. It places the National Park Service in a reactive role, responding to resource damage and user conflicts as issues arise. For all activities, the National Park Service would respond to changing use patterns as necessary to protect park resources, visitor safety, and visitor experience.

WILDERNESS MANAGEMENT

The National Park Service would continue existing policies for protecting “solitude” and “wilderness character” as part of backcountry management at Denali National Park and Preserve.

REGISTRATION AND PERMITS

There would be no new permit or registration requirements beyond those already in place for backcountry use in the Old Park, Kantishna Hills, Mount McKinley, and Mount Foraker for independent trips; concession permits and incidental business permits for commercial activities; and research permits for research activities. See Chapter 3 – Affected Environment for details about existing permit and registration requirements.

MANAGEMENT AREAS AND DESIGNATIONS

No new management areas would be defined to describe desired conditions for resources and visitor experience or determine appropriate management tools and means of access. The only applicable management area distinctions would be those identified in the 1986 *General Management Plan*, including the Natural, Historic, Park Development, and Special Use Zones, as amended by the 1997 *Entrance Area and Road Corridor Development Concept Plan*.

Most of the park additions and preserve would not be divided into backcountry units. The overnight quota and permit system would apply only to the Old Park and backcountry units 40-43 in the park additions (map 2-1).

GENERAL & NON-COMMERCIAL ACTIVITIES

Overnight Camping

The existing quota and permit system would continue to apply to the Old Park and Units 40-43 (Clearwater Fork, Spruce Peak, Eureka, Eldorado) in the park additions only. There would be no backcountry unit limitations on overnight camping in other units of the park additions or the preserve.

Airplane Landings – General Aviation

General aviation airplane landings would be allowed throughout the entire park and preserve consistent with the 1986 regulations implementing ANILCA Title XI. Guidance for maintaining backcountry landing areas would remain that of the 1986 *General Management Plan*.

Aircraft Overflights

No action would be taken to manage or limit the impacts of aircraft overflights.

Snowmobiles

Snowmobile use in the park additions and preserve would be managed only through enforcement of existing laws and regulations (as described in chapter 1 and Appendices F and G). Otherwise, there would be no limits on the location or amount of snowmobile use in these areas. There would be no requirements for snowmobile technology that reduces environmental impact.

Motorboats

Motorboats could continue accessing the former Mount McKinley National Park, park additions, and preserve using any waterway.

Hiking

There would be no formal limitation on the group size or overall number of day hikers in the Old Park, park additions, or preserve although the quota for camping would still limit overnight back-packing use in the Old Park.

Climbing and Mountaineering

The park would continue to require registration and collect a registration fee for climbing Mount McKinley and Mount Foraker. There would continue to be no limits on numbers of climbers on Mount McKinley or other peaks in the park and preserve. There would be no limit on the size of unguided climbing expeditions. Power drills could be used outside of designated wilderness areas, and there would be no restrictions on the use of fixed and removable anchors.

Non-Motorized Winter Activities (Skiing, Snowshoeing, Skijoring, Dog Mushing)

There would continue to be no restrictions on non-commercial, non-motorized winter activities, except that the backcountry permit system would continue to apply for overnight use in the Old Park and units 40-43.

Bicycle Use

All areas of the Old Park, park additions, and preserve not closed to all entry would continue to be open to bicycle use.

Pack Animals

There would continue to be no restrictions on the use of pack animals in the Old Park, park additions, and preserve.

Brown bears that live more than 100 miles inland are typically referred to as grizzlies. In Denali, grizzlies eat berries, grasses, roots, and ground squirrels. NPS photo



GUIDED ACTIVITIES AND COMMERCIAL SERVICES

Guided Activities and Commercial Services Planning.

No specific criteria or objectives would be developed for determining the appropriateness or allocation of guided activities and commercial services in the Denali National Park and Preserve backcountry. General NPS management policies would continue to apply for determining appropriateness and allocation.

Commercial Airplane Landings.

No new requirements or restrictions would be placed on the number or type of air taxi or scenic tour glacier landings. There would also be no new requirements or restrictions on the number or type of commercial landings by incidental business permit (IBP) holders in the non-glaciated areas of the park additions and preserve. There would be no restrictions on the time of year in which scenic tour landings could occur at Base Camp. If necessary, the National Park Service would set limits on scenic air tour landings under existing commercial use authorizations.

Guided Hiking

Existing guided hiking activities would continue to be available. There would be no additional limits to group size or the number of times particular locations could be visited, except for NPS Discovery Hikes as described in Chapter 3 – Affected Environment. Presently permitted commercial enterprises would see no changes in the areas that they are permitted to use.

Commercial Bicycle Touring

There would continue to be no commercial use of bicycles in the park backcountry.

Guided Sport Hunting

Current guided sport hunting concessions in the preserve would continue under current concessions management. Hunting guide areas in the southwest preserve would remain unchanged.

FACILITIES

Trails

No new trails would be added, except those identified in the *1997 Entrance Area and Road Corridor DCP* and the *1997 South Side Denali DCP*. The National Park Service would not participate in the development of a statewide snowmobile trail system. The park road would remain unplowed until necessary for summer season use.

Information Facilities, Shelters, Campsites

No new backcountry information facilities, shelters, cabins, or backcountry campsites would be developed, except those described in the 1997 *South Side Denali Development Concept Plan* and the 1997 *Entrance Area and Road Corridor Development Concept Plan*.

ADMINISTRATION

National Park Service Administration and Research

Year-to-year operational decisions would continue to guide administrative presence in the backcountry. A permit system for all research and other scientific uses would continue to apply. Permit approvals for research in the park backcountry would continue to be guided only by the existing Resource Management Plan and existing management policies. The existing administrative camps on Mount McKinley would be maintained. Proposals for new administrative camps would continue to be considered on an *ad hoc* basis and subject to the minimum requirement process in designated wilderness. The minimum requirement process for approving management and research actions in the backcountry would apply to suitable and designated wilderness areas in the Old Park.

EASEMENTS AND BOUNDARY CHANGES

Easements

The National Park Service would not seek to acquire an easement over privately owned lands in order for the public to access the existing 17(b) easement (EIN 7a C5, DI, L) that provides a route across Ahtna, Inc. land from Cantwell to the park boundary. See map 2-II.

Land Exchanges

The National Park Service would address land exchanges on a case by case basis following guidance in ANILCA and the 1986 GMP.

WILDERNESS SUITABILITY

The National Park Service would use existing wilderness suitability information to manage lands in the park additions and preserve.

ACTIONS COMMON TO ALL ACTION ALTERNATIVES

The following actions would be taken if any of the alternatives B-E were approved.

WILDERNESS MANAGEMENT

The National Park Service would manage all backcountry areas of the national park to protect wilderness character, consistent with the direction of NPS Management Policies (section 6.3.1) that include the categories of “suitable, study, proposed, recommended, and designated wilderness” within the scope of its wilderness resource management policy (NPS 2001). As described in chapter 1, the Wilderness Act identifies two key components of wilderness character as

- 1) generally appearing to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable; and
- 2) having outstanding opportunities for solitude or a primitive and unconfined type of recreation.

Wilderness character includes the natural and scenic condition of the land, natural numbers and interactions of wildlife, and the integrity of ecological processes. At its core, wilderness character, like personal character, is much more than a physical condition. The character of wilderness is an unseen presence capable of refocusing our perception of nature and our relationship to it. It is that quality that lifts our connection to a landscape from the utilitarian, commodity orientation that dominates the major part of our relationship with nature to the symbolic realm serving other human needs (*Federal Register*, Vol. 66, No. 10, p. 3729).

Providing opportunities for solitude would include managing for visitor experiences with the following characteristics:

- Freedom from the reminders of society
- Privacy and isolation
- Absence of distractions such as large groups, mechanization, unnatural noise, signs, and other modern artifacts (*Federal Register*, Vol. 66, No. 10, p. 3713, 1/16/01).

The National Park Service recognizes the intangible values of wilderness, and in implementing this plan and with future management actions, would with every decision forego actions that might have no seeming physical impact but which would detract from the idea of wilderness as a place set apart, a place where human uses, convenience, and expediency do not dominate.



River crossings are one of many challenges of backcountry travel in Denali. Photo: Kennan Ward

REGISTRATION AND PERMITS

All action alternatives would extend registration and/or permit requirements to cover all of the Denali backcountry. The specific requirements would depend on the management actions taken in each alternative, but there are two basic systems that would be employed.

Registration: For some activities and in some areas, the National Park Service needs to track visitor use and provide information to users, but not limit the number of users. These goals would be accomplished through one of two varieties of registration.

- 1) Voluntary registration would rely on visitors to willingly share information on their park use through a trailhead register, radio call-in, the Internet, or other means.
- 2) Mandatory registration would require visitors to register their use. In return, the NPS would provide the visitor with a permit as described below, but there would be no limit on the number of permits issued.

The National Park Service would use registration information to determine use levels throughout the backcountry and to make decisions on management action necessary to protect the visitor experience and resources. This would make it possible to achieve and maintain the desired conditions of each management area.

Limited Permit: For some activities and in some areas, the National Park Service needs to limit the number of users to meet the desired conditions for visitor experience and resource protection. A limited permit system would accomplish the same goals as registration, and in addition would manage the number of users according to established quotas. The National Park Service would

Each management area reflects an overall management concept or vision and provides for a related set of opportunities in the backcountry.

establish a carrying capacity for particular activities or particular locations to achieve desired conditions in designated management areas, and then issue a limited number of permits for that activity or location.

Under the Mandatory Registration and Limited Permit systems, permits would be issued to specific individuals. The permit would provide information about park rules and conditions for use necessary to protect visitor experience and park resources. Examples of permit conditions are as follows:

- Location(s) to be visited
- Time and duration of visit(s)
- Minimum impact travel and camping requirements (such as waste handling and food storage)
- Wildlife, vegetation, and other resource protection requirements

Specific permit conditions would be determined through an annual plan review process that would include public meetings in the Denali area (see Adaptive Management, below). Visitors would be required to keep the permit in their possession while in the backcountry, and violation of permit conditions would be grounds for revocation of the permit.

Commercial Uses: Commercial uses are governed using different tools. Proposals for managing commercial use are described below in the section Guided Activities and Commercial Services.

***Options for Registration and Permit Systems:** Upon approval of one of the action alternatives, the National Park Service would employ the most efficient, cost-effective, and user-friendly methods for park visitors to register or obtain permits to access the park backcountry. The goals would be to 1) improve the existing system, 2) expand the system to serve new activities and areas as identified in the plan, and 3) provide safety and resource protection information to visitors before they enter the backcountry. The last goal – the educational component – has been an important function of the existing permit and registration systems that would be continued under any new system. Some options that would be considered include:*

- Same-day and advance permits or registration
- One-time, seasonal, and annual registration
- Staffed desks or automated kiosks in Anchorage, Fairbanks, Trapper Creek, Talkeetna, Cantwell, Healy, or other locations
- Permits and registration by phone, Internet, or mail

See table 2-6 for a summary of permit and registration requirements for each activity under each alternative.

MANAGEMENT AREAS

All action alternatives in the plan would establish management areas for the entire park and preserve. Each management area reflects an overall management concept or vision and provides for a related set of opportunities in the backcountry. Each area is defined by desired visitor experience and resource conditions and by the types and levels of visitor uses, park development, and management activities that would be allowed. Allocation of management areas is a prescriptive process that describes the desired condition rather than the existing condition.

Based on National Park Service management policies, comments received during the early phases of planning, resource information, and use patterns, five management areas were identified and applied under each alternative in a manner consistent with the vision for that alternative. These areas are roughly described by their titles – Backcountry, Primitive, Natural, Old Park Special Resource, and Mountaineering Special Use. Each area includes specific goals for resource conditions and different types and levels of backcountry use. In addition to these five, there are four overlay management areas – Portal, Backcountry Day Use, and Hiker that allow for higher encounter rates than the surrounding area, and a Closure designation that prohibits all use to protect resources on a temporary or permanent basis. The Hiker and Backcountry Day Use areas were adopted from the 1997 *Entrance Area and Road Corridor Development Concept Plan*.

Table 2-1: Permit and Registration Requirements by Activity and Alternative

ACTIVITY	ALTERNATIVE				
	A	B	C	D	E
Overnight Camping All Activities					
• Old Park and Units 40-43	L	L	L	L	L
• Park Additions and Preserve	N	M	M	M	M
Airplane Landings					
• General Aviation, additions	N	M	V	V	V
• General Aviation, Old Park	N	C	C	C	M
Snowmobile Use In Additions					
• Recreation Dispersed/Concentrated	N	C	L/L	L/M	L/M
• Glacier Travel	N	C	C	L	L
Motorboat Use					
• Old Park	N	C	C	C	C
• Park Additions and Preserve	N	M	M	M	M
ORV Use					
• Old Park	C	C	C	C	C
• Park Additions and Preserve	M	M	M	M	M
Climbing and Mountaineering					
• Mount McKinley and Foraker	M	L	L	L	M
• All Other Climbing	N	M	M	M	M
Hiking	N	M	N	N	N
Horses	N	M	M	M	M
Non-motorized Winter Activities	N	M	V	V	V

Key:

L = Limited Permit

M = Mandatory Registration

V = Voluntary registration

N = No Registration or Permit

C = Closed

For all areas, common management policies would apply to subsistence activities, fire management, cultural resources management, natural resources management, and reclamation as expressed in other plans. These plans include:

- Subsistence Management Plan (NPS, pending)
- Resource Management Plan (NPS 1998)
- Reclamation Plan (NPS 2001c)

Maps 2-1, 2-2, 2-3, 2-4, and 2-5 show how management areas would be applied under each alternative. To implement the management areas, the park additions and preserve would also be divided into backcountry units like those that are used in the Old Park.

Inholdings in various areas are not shown on the maps, but the National Park Service recognizes these private lands and respects the rights of landowners. Inholdings are located primarily in the Kantishna area, with some in the northwest part of the park and a few on the south side, such as the Mountain House in the Ruth Amphitheater and the Tokosha Mountain Lodge along the Tokositna River. Management areas do not apply to lands that have been conveyed to private owners, the State of Alaska, or Native corporations.

Table 2-1 summarizes the desired visitor experience and resource conditions for each management area. Table 2-2 summarizes the types of allowable access, facilities, and administrative presence in each management area. Complete narrative descriptions for both tables are below table 2-2.

Table 2-2: Desired Future Conditions in Management Areas

Management Area	Overall Character	Visitor Experience	Landscape	Resource Conditions	Soundscap
Backcountry	Feels accessible and frequently visited, but the landscape is still primarily natural with few permanent reminders of human presence.	Visitors find solitude most of the time, but they may encounter ^a up to 10 parties per day. Requires a moderate degree of self-reliance, advance planning, and time commitment.	Minor resource impacts may be common at access points but resource impacts are infrequent elsewhere. Social trails may be common in some places such as popular access points and designated travel corridors. Infrequent transient ^b evidence of human activity occurs elsewhere.	Resource impacts may be minimal. Evidence of modern human use may include occasional social trails where use is concentrated; infrequent transient ^b evidence of human activities may occur elsewhere.	Natural sounds are uncommon at every point in the area. Depending on the season, weather, proximity to travel corridors, human noise from snowmobiles, aircraft, or other sources may be loud.
Primitive	Feels remote and rarely visited, as if new discoveries remain to be made.	Visitors find solitude almost always, but they may encounter ^a up to 2 parties per day. Requires a moderate to very high degree of self-reliance, advance planning, and time commitment.	Resource impacts are minimal. Evidence of modern human use may include occasional social trails where use is concentrated; infrequent transient ^b evidence of human activities may occur elsewhere.	Natural sounds are uncommon at every point in the area, but depending on the season, weather, and proximity to travel corridors there may be infrequent intrusions of noise from snowmobiles or other sources, a few of which may be loud.	Natural sounds are uncommon at every point in the area, but depending on the season, weather, and proximity to travel corridors there may be infrequent intrusions of noise from snowmobiles or other sources, a few of which may be loud.
Natural	Feels remote and unexplored, as if few people have ever visited.	Visitors find virtually complete solitude; they encounter ^a no more than 3 parties per week. Requires a high to very high degree of self-reliance, advance planning, and time commitment.	Resource impacts are extremely rare or nonexistent. The landscape appears untouched, with no discernible signs of social trails or campsites, although there may be infrequent transient ^b evidence of human use.	Natural sounds are almost always interrupted by human intrusions are limited to aircraft, snowmobile, and visitor passing through.	Natural sounds are almost always interrupted by human intrusions are limited to aircraft or other park resources passing through. Depending on the season, weather, and proximity to travel corridors, there may be human noise from vehicles, roads, aircraft, dog teams, hikers, although natural sounds are still undisturbed the great majority of the time.
Old Park Special Resource	Feels remote and rarely visited, as if new discoveries remain to be made.	Visitors find solitude almost always, but they may encounter ^a up to 2 parties per day. Requires a moderate to very high degree of self-reliance, advance planning, and time commitment.	Resource impacts are extremely rare or nonexistent. Evidence of modern human use may include occasional social trails where use is concentrated; infrequent transient ^b evidence of human activities may occur elsewhere.	Natural sounds are almost always interrupted over most of the area. Intrusions are limited to aircraft or other park resources passing through. Depending on the season, weather, and proximity to travel corridors, there may be human noise from vehicles, roads, aircraft, dog teams, hikers, although natural sounds are still undisturbed the great majority of the time.	Natural sounds are almost always interrupted over most of the area. Intrusions are limited to aircraft or other park resources passing through. Depending on the season, weather, and proximity to travel corridors, there may be human noise from vehicles, roads, aircraft, dog teams, hikers, although natural sounds are still undisturbed the great majority of the time.

Table 2-2: Desired Future Conditions in Management Areas, con't

Mountaineering Special Use	Feels like a series of established wilderness camps connected by a trail remote in location yet very social with many signs of human presence.	Visitors have limited opportunity for solitude. Requires a very high degree of self-reliance, advance planning, and time commitment.	Resource impacts may be moderate. Evidence of modern human use may include fixed ropes, anchors, temporary snow walls and shelters, packed trails and campsites, and primitive toilet facilities.	Natural sounds are frequently disturbed by the sounds of visitors nearby on the ground by the noise of aircraft or during the summer visit climbing season.
OVERLAYS				
Portal	Feels like a trailhead, where visitors expect to see signs of other people before or after a more remote, solitary experience.	Limited opportunities for solitude with up to 10 encounters per day.	Resource impacts may be moderate. Evidence of modern human use may include temporary snow walls and shelters, packed trails and campsites, airplane landing areas, and primitive toilet facilities.	Natural sound conditions similar to the surrounding management area, but increased by aircraft dropping off and are louder and more frequent.
Backcountry Day Use	Feels accessible and frequently visited, but the landscape is still primarily natural with few permanent reminders of human presence.	Visitors find solitude most of the time, but they may encounter up to 10 parties per day. Requires a low degree of self-reliance, advance planning, and time commitment.	Resource impacts are moderate. Evidence of modern human use may include a moderate number of social trails and partially or fully constructed trail sections at access points and other areas where use is concentrated. Infrequent transient evidence of human activity occurs where use is dispersed.	Natural sounds are often undisturbed, but there are frequent, usually faint noises from other visitors area and from traffic on road.
Hiker	Feels like a developed, accessible, very frequently traveled pathway through an otherwise entirely undisturbed natural landscape.	Visitors have little opportunity for solitude. Other people are generally within sight. Requires very little self-reliance, advance planning, or significant time commitment.	Resource impacts are moderate. Evidence of modern human use includes fully constructed trails and may include social trails nearby. Infrequent transient evidence of human activity occurs where use is dispersed.	Natural sounds are often undisturbed, but there are frequent, usually faint noises from other visitors area, aircraft, and traffic park road or highway.
Closure	There is no public access to this area.	There is no public access to this area.	Resource conditions are similar to the surrounding area.	Natural sound conditions similar to the surrounding area.

Table 2-3: Management Area Access and Administration

Management Area	Access	Facilities	Administrative Presence
Backcountry	<ul style="list-style-type: none"> • Foot (hike, ski, snowshoe) • Dog Team • Snowmobile • Motorboat • Airplane 	Marked routes, trail sections, designated campsites, signs, groomed trails, and food storage facilities. No other new permanent or temporary administrative/recreational structures or facilities are allowed ^a .	Rangers make routine visitor contacts. If resource impacts are greater than expected, mitigation actions may modify resource behavior, distribution, or numbers.
Primitive	<ul style="list-style-type: none"> • Foot (hike, ski, snowshoe) • Dog Team • Snowmobile • Motorboat • Airplane 	Trail sections, sanitation facilities. No other new permanent or temporary administrative/recreational structures or facilities are allowed.	Rangers make routine visitor contacts. If resource impacts are greater than expected, mitigation actions favor altering visitor behavior, distribution, or numbers, but could include resource management actions.
Natural	<ul style="list-style-type: none"> • Foot (hike, ski, snowshoe) • Dog Team • Snowmobile • Motorboat • Airplane^c 	No new permanent or temporary administrative/recreational structures or facilities of any kind are allowed ^d .	Administrative presence limited to occasional ranger patrols, emergency response. Mitigation actions favor altering visitor behavior, distribution, or numbers; managers will not modify or manipulate resources.
Old Park Special Resource	<ul style="list-style-type: none"> • Foot (hike, ski, snowshoe) • Dog Team • Airplane^d 	No new permanent or temporary administrative/recreational structures or facilities of any kind are allowed ^e .	Visitors are generally unaware of administrative presence. Impacts are greater than expected, managers will take actions to modify or manipulate resources.
Mountaineering Special Use	<ul style="list-style-type: none"> • Foot (hike, ski, snowshoe) • Airplane 	Temporary administrative camps, marked routes and fixed equipment, and primitive toilet facilities are allowed ^e .	Rangers may make routine visitor contacts. Decisions regarding resource management are made on a case-by-case basis using the minimum required information.
Portal	<ul style="list-style-type: none"> • Access is same as surrounding unit. 	Allowable facilities are the same as for the surrounding unit.	If impacts are greater than expected, managers will take actions that may alter visitor distribution, behavior or would consider whether or not an action would change or vision for the surrounding area and whether or not it is irreversible.
Backcountry Day Use	<ul style="list-style-type: none"> • Foot (hike, ski, snowshoe) • Dog Team 	No new permanent or temporary administrative/recreational structures or facilities of any kind are allowed. No overnight camping is allowed ^e .	Rangers may make routine visitor contacts. If resource impacts are greater than expected, managers will favor taking mitigation actions to modify visitor behavior, distribution, or numbers.
Hiker	<ul style="list-style-type: none"> • Foot (hike, ski, snowshoe) 	Trails, bridges, and boardwalks are allowed.	Rangers may make routine visitor contacts. If resource impacts are greater than expected, mitigation actions may modify resource behavior, distribution, or numbers.
Closure	There is no public access to this area.	No new permanent or temporary administrative/recreational structures or facilities of any kind are allowed ^e .	Researchers or other administrative staff enter only as needed for resource conditions.

Notes to Tables 2-2 and 2-3

^a An encounter is the unaided recognition by sight or sound of another park user. User = subsistence users, sport hunters, pedestrians, people using mechanized transport where allowed, researchers, and park staff. Users do not include aircraft in flight. A "day" = 24 hours, and a "party" is a group of less than 15 people. An encounter rate is the number of parties encountered per day. Although this definition includes subsistence users, management will not restrict subsistence activities to reduce encounter rates to desired conditions.

^b Transient evidence includes things like footprints that wash away, boat wakes that roll on the beach and are gone, tent sites that recover because they are dispersed or infrequently used, aircraft that fly overhead but soon are out of range, snowmobile or airplane tracks that melt, wash away, or are covered by wind and snow.

^c Private aircraft and air taxis only: no commercial day use.

^d See Aircraft Landings maps 2-13, 2-14, 2-15, and 2-16. No aircraft landings allowed in most alternatives. Where allowed, private aircraft only, no commercial landings.

^e Temporary structures prohibited do not include tents, tarps, or other aids to camping that can be carried in a backpack and erected without ground disturbance.

The following management area descriptions are based on the Regional Management Area Descriptions developed by the National Park Service Backcountry and Wilderness Advisory Group for the Alaska Region.

Backcountry Area (Regional Zone E)

Desired/Expected Conditions: This area would be managed to emphasize recreational and aesthetic values. The area feels accessible and frequently visited, but the landscape is still primarily natural with few permanent reminders of human presence.

Visitors find solitude most of the time; but they may encounter¹ up to 10 parties per day, and opportunities for solitude are limited during popular use times. This area requires a moderate degree of self-reliance, advance planning, and time commitment.

Minor resource impacts may be common at access points, but resource impacts are infrequent elsewhere. Social trails may be common in some places, such as popular access points. Infrequent transient evidence² of human activity occurs elsewhere.

Natural sounds are undisturbed the greater part of every hour over the entire area. Depending, however, on the season, weather, and proximity to travel corridors, there may be frequent intrusions of human noise from snowmobiles, aircraft, or other sources, some of which may be loud.

Access: Airplanes (in the preserve), motorboats, and snowmobiles may be used for subsistence as permitted under ANILCA. Airplanes, motorboats, and snowmobiles may be used for day use and overnight access. Air taxi and scenic tour landings³ may be used for access subject to the terms of a concession or other permit. Otherwise, visitors travel in this area by their own power without the aid of motorized or mechanized vehicles or equipment.

Management Tools: Registration and permit systems would be employed as necessary to achieve the desired encounter rates. Party size would be limited to a maximum of 12-15 for overnight use and day use, depending on destination and frequency of trips.

In general, necessary regulations are conveyed to visitors both in the backcountry and at locations where registration is completed. Rangers may make routine visitor contacts, so visitors will generally be aware of administrative presence.

If resource impacts are greater than expected, managers would combine mitigation actions that modify resources with mitigation actions that alter visitor behavior, visitor distribution, or numbers. Resource modifications could include such things as marked routes, signs, constructed trail sections, groomed trails, designated campsites, designated snowmobile corridors, and food storage facilities. No other new permanent or temporary administrative/recreational structures or facilities of any kind are allowed.

Treatment of existing administrative and recreational structures and facilities would be determined on a case-by-case basis through the minimum requirement process.

Primitive Area (Regional Zone D)

Desired/Expected Conditions: The purposes of this area are to protect wilderness character; provide opportunities for remote, self-reliant travel; and provide opportunities for solitude, introspection, restoration, and personal growth. The area feels remote and rarely visited, as if new discoveries remain to be made.

Visitors usually find solitude, but they may encounter up to two parties per day. Travel in this area requires a moderate to very high degree of self-reliance, advance planning, and time commitment.

Minor resource impacts may be common at access points, but resource impacts are infrequent elsewhere. Social trails may be common in some places, such as popular access points. Infrequent transient² evidence of human activity occurs elsewhere.

Natural sounds are undisturbed the greater part of every hour over the entire area. Depending, however, on the season, weather, and proximity to travel corridors, there may be infrequent intrusions of human noise from snowmobiles, aircraft, or other sources, a few of which may be loud.

Access: Airplanes (in the preserve), motorboats, and snowmobiles may be used for subsistence as permitted under ANILCA. Airplane landings, motorboats, and snowmobiles are permitted in some places to provide for day use and overnight access for backcountry recreation. Air taxi and scenic tour landings may be used for access subject to the terms of a concession or other permit. Otherwise, visitors travel in this area by their own power without the aid of motorized or mechanized vehicles or equipment.

Management Tools: Registration and permit systems would be employed as necessary to achieve the desired encounter rates. Party size would be limited to a maximum of 12-15 people for overnight use and day use, depending on destination and frequency of trips.

In general, necessary regulations are conveyed to visitors at park visitor centers and other locations where registration is completed and in the backcountry. Rangers may make routine visitor contacts, so visitors may be aware of administrative presence.

If resource impacts are greater than expected, managers will favor mitigation actions that may alter visitor distribution, behavior, or numbers. However, if necessary, managers also may take mitigation actions that modify the resources. Resource modification could include such things as sanitation facilities, and short sections of constructed trails or boardwalks. No other new permanent or temporary administrative/recreational structures or facilities would be allowed.

Treatment of existing administrative/recreational structures and facilities would be determined on a case-by-case basis through the minimum requirement process.

Natural Area (Regional Zone C)

Desired/Expected Conditions: The purposes of this area are to protect wilderness character; provide opportunities for remote, self-reliant travel; and provide opportunities for solitude, introspection, restoration, and personal growth. The area feels remote and unexplored, as if few people have ever visited.

Visitors find virtually complete solitude; they encounter no more than three parties per week. Travel in this area requires a high to very high degree of self-reliance, advance planning, and time commitment.

Resource impacts are extremely rare or nonexistent. The landscape appears untouched, with no discernible signs of social trails or campsites, although there may be infrequent transient² evidence of human use.

Natural sounds are almost never interrupted by human noise; intrusions are limited to the rare aircraft, snowmobile, or other park visitor passing through.

Access: Airplanes (in the preserve), motorboats, and snowmobiles may be used for subsistence as permitted under ANILCA. Airplane landings (including commercial air taxis, but not scenic tour flights), motorboats, and snowmobiles are permitted in some places to provide for day use and overnight access for backcountry recreation. Otherwise, visitors travel in this area by their own power without the aid of motorized or mechanized vehicles or equipment.

Management Tools: Registration and permit systems would be employed as necessary to achieve the encounter rate standard. Party size is up to a maximum of 12-15 for overnight use and day use, depending on destination and frequency of trips. For commercial aircraft landings, only air taxi pickups and drop-offs would be allowed. Scenic tour landings would not be allowed.

Necessary regulations are conveyed to visitors mainly at park visitor centers and other locations where backcountry registration is completed. Administrative presence is generally limited to emergency activities and occasional patrols, with research and resource monitoring projects in some areas.

If impacts are greater than expected, managers will take actions that alter visitor distribution, behavior, or numbers. Managers will not take actions that modify or manipulate resources.

No new permanent or temporary administrative/recreational structures or facilities of any kind are allowed (see footnote 2). Treatment of existing administrative/ recreational structures and facilities is determined on a case-by case-basis through the minimum requirement process.

Old Park: Special Resource Area (Denali National Park and Preserve [DENA] Special Use Zone)

The term “Old Park” refers to the entire area within the boundaries of the former Mt. McKinley National Park, including areas in the frontcountry development zone and any of the backcountry management areas. The “Old Park Special Resource Area” is a management area that encompasses most of the backcountry in the old park, but does not include Backcountry Day Use, Hiker, or Mountaineering Special Use Areas that are also found within the boundaries of the former Mt. McKinley National Park.

Desired/Expected Conditions: The Old Park has a specific history grounded in the preservation of wilderness values and an intact ecosystem. The purposes of this area are to protect that legacy and provide visitors compatible opportunities to experience it. The Old Park provides opportunities for remote, self-reliant travel and opportunities for solitude, introspection, restoration, and personal growth. The area feels remote and rarely visited, as if new discoveries remain to be made.

Visitors usually find solitude, but they may encounter up to two parties per day. Travel in this area requires a moderate to very high degree of self-reliance, advance planning, and time commitment.

Resource impacts are extremely rare or nonexistent. Evidence of modern human use may include occasional social trails where use is concentrated; infrequent transient² evidence of human activities may occur elsewhere.

Natural sounds are almost never interrupted over most of this area; intrusions are limited to the rare aircraft or other park visitor passing through. Depending on the season, weather, and proximity to travel corridors, there may be faint, sometimes frequent intrusions of human noise from vehicles on roads, aircraft, dog teams, or hikers, although natural sounds are still undisturbed the greater part of every hour.

Access: Visitors travel to and within this area under their own power without the aid of motorized or mechanized vehicles or equipment. Non-commercial aircraft landings may be allowed in some areas.

Management Tools: A limited permit system would continue to be employed to achieve the encounter rate standard. Party size is up to a maximum of 12-15 for overnight use and day use, depending on destination and frequency of trips.

Necessary regulations are conveyed to visitors at the main visitor center. Visitors in the backcountry are generally unaware of administrative presence.

If resource impacts are greater than expected, managers will take actions that alter visitor distribution, behavior, or numbers. Managers will not take actions that modify or manipulate resources.

No new permanent or temporary administrative/recreational structures or facilities of any kind are allowed. Treatment of existing administrative/recreational structures and facilities is determined on a case-by-case basis through the minimum requirement process.

Mountaineering Area—West Buttress of McKinley (DENA Special Use Area)

Desired/Expected Conditions: The purpose of this area is to provide for a mountaineering experience for a large number of users on an established route. This management area allows for established climbing routes, administrative camps, and large base camps, so it has a social feel with many signs of human presence, but still a sense of being very remote in location.

Encounter rates may be up to 200 other climbers per day at established camps along popular routes, and climbers would generally have to camp within sight and sound of other campers. Opportunities for solitude would be very limited. Because of the technical nature of the traveling in this area, travel requires a very high degree of self-reliance, advance planning, and time commitment.

Resource impacts may be moderate. Evidence of modern human use may include fixed ropes, anchors, temporary snow walls and shelters, packed trails and campsites, and primitive toilet facilities.

Natural sounds are frequently disturbed by the sounds of other visitors nearby on the ground and by the noise of aircraft overhead during the summer visitor and climbing season.

This area would apply only to the West Buttress climbing route on Mount McKinley during the main mountaineering season (April 1- August 1). Outside the main mountaineering season, this area would revert to the Old Park Special Resource Protection Area.

Access: Aircraft access is allowed at a designated Portal (see below), but otherwise visitors travel in this area under their own power without the aid of motorized or mechanized vehicles or equipment.

Management Tools: A registration system would continue to be employed but could be converted to a limited permit system under some alternatives. Party size is a maximum of 12 for all mountaineering groups.

In general, necessary regulations are conveyed to visitors at the Talkeetna Ranger Station and in the backcountry. Rangers may make routine visitor contacts, so climbers will be aware of administrative presence.

Treatment of existing administrative and recreational structures and facilities is to be determined on a case-by-case basis through the minimum requirement process.

Decisions about administrative and research activities (including motorized or mechanized uses) are made on a case-by-case basis using the minimum requirement process.

Portal (Regional Portal Zone)

A Portal is a common access point where the level of use is expected to be higher than that found in the adjacent management area. An example of a portal is a landing area at a popular climbing destination. Portals are depicted on Map 2-6, Mountaineering Study Areas and Portals. This management designation applies during the main mountaineering season.

Desired/Expected Conditions: There is a different experience expectation in this area than may be found in the surrounding management area. Portals feel like trailheads, where visitors expect to see signs of other people before or after a more remote, solitary experience.

Up to 10 parties per day may be encountered at a Portal. However, the number of people going from the Portal into the surrounding management area would be compatible with the desired conditions of that area.

Resource impacts may be moderate. Evidence of modern human use may include temporary snow walls and shelters, packed trails and campsites, airplane landing areas, and primitive toilet facilities.

Natural sound conditions are similar to the surrounding management area, but intrusions by aircraft dropping off passengers are louder and more frequent.

Access: Access is the same as for the surrounding area.

Management Tools: The portal would be considered part of the surrounding unit for registration or permitting purposes.

A portal designation allows management more flexibility to respond to visitor-caused impacts. Portal areas may require additional management action to mitigate impacts. If impacts are greater than expected, managers will favor mitigation actions that may alter visitor distribution, behavior, or numbers. Managers would consider whether or not an action would change the character of or vision for the surrounding area and whether or not the action is irreversible.

Allowable permanent or temporary structures and facilities would be consistent with the surrounding management area. However, there is a greater likelihood that any allowable structures such as primitive toilets or administrative camps would be located in the portal portion of a unit. The National Park Service would try to locate any necessary administrative facilities in portals where possible.

Decisions about administrative and research activities (including motorized or mechanized uses) are made on a case-by-case basis using the minimum requirement process.

Backcountry Day Use Area

The 1997 *Entrance Area and Road Corridor Development Concept Plan* has applied this management area to the road corridor for the summer season. It extends for one-half mile on each side of the Denali Park Road and encompasses other day use areas, including areas that may receive heavy use. In this backcountry management plan the designation also applies to other high use areas in both summer and winter. Because the areas it covers are small, it does not appear on the management area maps.

Desired/Expected Conditions: The purpose of this area is to provide a backcountry experience to a wide range of users for day use activities that do not require much advance planning or time commitment. This area feels accessible and frequently visited, but the landscape is still primarily natural with few permanent reminders of human presence.

Visitors find solitude most of the time, but they may encounter up to 10 parties per day. Travel in this area requires a low degree of self-reliance, advance planning, and time commitment.

Resource impacts are moderate. Evidence of modern human use may include a moderate number of social trails and partial or fully constructed trail sections at access points and other areas where use is concentrated. Infrequent, transient² evidence of human activity occurs where use is dispersed. Natural sounds are often undisturbed, but there are frequent, usually faint intrusions of noise from other visitors in the area and from traffic on the park road.

Access: Visitors generally travel to and within this area by their own power without the aid of motorized or mechanized vehicles or equipment.

Management Tools: Registration or permit systems could be employed to manage use in this area. Party size is up to a maximum of 15.

In general, necessary regulations are conveyed to visitors in the backcountry and at visitor contact centers. Rangers may make routine visitor contacts. If resource impacts are greater than expected, managers will favor taking mitigation actions that alter visitor behavior, visitor distribution, or numbers.

No new permanent or temporary administrative/recreational structures or facilities of any kind are allowed. No overnight camping is allowed.

Hiker Area

This management area is seasonal (May through September) and applies only to constructed trails or marked hiking routes. Since this area encompasses a relatively small portion of the park, it is not shown on the map for each alternative.

Desired/Expected Conditions: The purpose of this area is to provide for very high use of the backcountry along established trails. The description of the area is consistent with the Hiker Area described in the 1997 *Entrance Area and Road Corridor Development Concept Plan*; essentially this designation is being extended to similar trails proposed under various alternatives in the backcountry management plan. This area feels like a developed, accessible, very frequently traveled pathway through an otherwise entirely undisturbed natural landscape.

Visitors expect a very social feeling to prevail and have little opportunity for solitude. Other people are generally within sight. Travel in this area requires very little self-reliance, advance planning, or significant time commitment.

Resource impacts are moderate. Evidence of modern human use includes fully constructed trails and may include social trails nearby. Natural sounds are often undisturbed, but there are frequent, usually faint intrusions of noise from other visitors in the area, aircraft, and traffic on the park road or highway.

Access: Visitors travel to and within this area by their own power without the aid of motorized or mechanized vehicles or equipment.

Management Tools: Recreational facilities may include constructed and maintained trails and associated facilities such as bridges, boardwalks, and benches where necessary for visitor safety or to minimize resource impacts. No other administrative or recreational facilities are allowed. Decisions about administrative and research activities (including motorized or mechanized uses) are made on a case-by-case basis using the minimum requirement process.

Rangers may make routine visitor contacts. If resource impacts are greater than expected, mitigation actions may modify resources or alter visitor behavior, distribution, or numbers. Where camping is allowed, visitors must camp at least ¼ mile from Hiker Areas.

Closure (Regional Zone A)

Desired/Expected Conditions: This area is used to protect public health and safety, protect natural or cultural resources, and aid scientific research (for example, to use as a control for areas with human impacts). This area is open only to authorized park staff, researchers, and subsistence users (where subsistence activities are allowed by law). The general public benefits indirectly from the experience of knowing that particularly sensitive resources are preserved for future generations. Resource impacts are extremely rare or nonexistent. (see Chapter 3 – Affected Environment, Closures section for more information). Natural sound and other resource conditions would be the same as the surrounding area.

Management Tools: Closed to visitor use. No new permanent or temporary administrative and recreational structures or facilities of any kind are allowed.

Treatment of existing administrative and recreational structures and facilities is determined on a case-by-case basis through the minimum requirement process.

Closure boundaries are independent of unit boundaries. As areas are identified as closures, signs will be posted along the boundaries of the closures, and appropriate park personnel and local businesses

will be notified. Closures will change to reflect current conditions and animal behavior. When the criteria for establishing a closure no longer exist, the area will return to its previous zoning status.

Climbing and Mountaineering Study Areas

Climbing and Mountaineering Study Areas are an additional overlay designation in management areas where the National Park Service would focus efforts on improving indicators for mountaineering. While encounter rate is an indicator commonly used as a measurement tool for solitude in activities such as hiking, backpacking, and skiing, the National Park Service recognizes that it may not be the most useful indicator for gauging the wilderness character of the climbing experience because of the inherent social nature of climbing, safety considerations, and access needs.

In these Climbing and Mountaineering Study Areas, the agency would survey users and work with mountaineering groups and the general public to determine potential methods for measuring visitor capacity. The registration requirement would result in complete and accurate use data. Monitoring resource conditions and the visitor experience in the study areas would enable the National Park Service to test other indicators besides encounter rate to determine visitor capacity at these locations. Through adaptive management and with up to date information on social and resource conditions, it is expected that visitor capacity in the study areas could exceed that in the surrounding management areas.

The Climbing and Mountaineering Study Areas are adjacent to Portals, where encounter rates exceed those prescribed for the surrounding management area. (See above description of Portals.)

MANAGEMENT AREA DESIGNATIONS

Management areas are designated in each alternative. Table 2-4 summarizes the percentage of the park in each management area under each alternative.

Table 2-4: Percentage of Park and Preserve in Each Management Area by Alternative

	Alternative			
	B	C	D	E
Natural	49%	43%	38%	17%
Primitive	16%	20%	23%	28%
Backcountry	0%	2%	3%	20%
Mountaineering	<1%	<1%	<1%	<1%
Old Park Special	35%	35%	35%	35%

Portals would be designated in the following areas (see Map 2-6, Mountaineering Study Areas and Portals): Kahiltna Base Camp, southwest fork Kahiltna, Ruth Amphitheater, Pika Glacier, Eldridge Glacier, and Buckskin Glacier.

Backcountry Day Use areas would be designated to cover the area ½ mile on each side of the park road corridor and the area on gravel river bars within ½ mile of each of the following development areas: Savage, Sanctuary, Igloo, and Teklanika Campgrounds, Savage River Bridge, and Toklat Road Camp.

Climbing and Mountaineering Study areas would be designated over portions of six units: Eldridge Glacier (#72), Buckskin Glacier (#73), Upper Ruth (#74), Middle Kahiltna (#78), Little Switzerland (#79), and Kichatna Mountains (#85) (see map 2-6).

Additional backcountry units would be created to cover the park additions and preserve. Table 2-5 lists all of the existing and new backcountry unit numbers and names. The unit numbers appear on management area maps 2-2, 2-3, 2-4, and 2-5. Detailed maps and descriptions of each unit follow at the end of this chapter (maps 2-21 to 2-56).

Table 2-5: Backcountry Units for Denali National Park and Preserve

1	Triple Lakes	39	Stony Creek
2	Riley Creek	40	Clearwater Fork
3	Jenny Creek	41	Spruce Peak
4	Upper Savage	42	Eureka Creek
5	Upper Sanctuary	43	Eldorado Creek
6	Upper Teklanika	44	Peters Glacier
7	Upper East Fork	45	Mount McKinley
8	Polychrome Glaciers	46	Upper Kahiltna
9	East Branch Upper Toklat	47	Mount Foraker
10	West Branch Upper Toklat	48	Herron Glacier
11	Stony Dome	61	Stampede
12	Sunset/Sunrise Glaciers	62	Southeast Stampede
13	Mount Eielson	63	Southwest Stampede
14	McKinley Bar East	64	Kantishna Hills
15	McKinley Bar West	65	Moose-McKinley
16	Windy Creek	66	McKinley-Birch
17	Foggy And Easy Pass	67	Birch-Foraker
18	Upper Glacier Creek	68	Herron-Highpower
19	Pirate Creek	69	Swift Fork
20	McGonagall Pass	70	Bull River
21	Muddy River	71	Ohio Creek
22	Upper Foraker	72	Eldridge Glacier
23	West Fork Glacier	73	Buckskin Glacier
24	Mount Healy	74	Upper Ruth
25	Healy Ridge	75	Lower Ruth
26	Primrose Ridge	76	Mount Hunter
27	Mount Wright	77	Tokositna Glacier
28	Sushana River	78	Middle Kahiltna
29	Igloo Mountain	79	Little Switzerland
30	Tributary Creek	80	Upper Yentna-Lacuna
31	Polychrome Mountain	81	Lower Kahiltna
32	Middle Toklat	82	Dall-Yentna
33	Stony Hill	83	Yentna River
34	Mount Galen	84	Mount Dall
35	Moose Creek	85	Kichatna Mountains
36	Jumbo Creek	86	Mount Mather
37	Lower East Fork	87	Mount Brooks
38	Lower Toklat		

GENERAL AND NON-COMMERCIAL ACTIVITIES

Overnight Camping

A mandatory registration system would be implemented for units in the park additions and preserve not presently included in the park's existing limited permit system. In the future, if use levels must be capped to achieve desired conditions for management areas, the National Park Service would replace registration with limited permits. The same system would apply for all overnight camping no matter how the user accesses the park, whether by foot, boat, snowmobile, airplane, or other means. Under the limited permit system, visitors would be required to camp in the unit and on the nights for which the permit was issued. Campsites could be designated in management areas where they are allowed (see Facilities section for specific information), but would be limited to a size such that desired encounter rates would not be exceeded even at the campsite. Food storage requirements would apply to all overnight use.

Campfires would not be allowed in the Denali Wilderness and other backcountry areas of the former Mount McKinley National Park between April 15 and September 30. During winter trips, (October 1 through April 14), small campfires would be allowed in these areas in conjunction with overnight backcountry trips or emergencies. Small campfires would be allowed year round in the park additions and preserve.

Overnight camping permits could be issued in conjunction with bicycle trips on the Denali Park Road, but storage of bikes while in the backcountry would be required at approved bike racks provided at campgrounds, with other campers, or with owner permission on private property.

Specific requirements and procedures would be detailed in the annual Backcountry Management Supplement (see Adaptive Management below).



Walking on gravel bars gives hikers excellent opportunities to view wildlife. NPS photo

Aircraft Overflights

The National Park Service would provide aircraft operators (including air tour operators, commercial transportation services, military, and general aviation pilots organizations) with management area descriptions from the approved backcountry management plan that describe desired soundscape conditions for each backcountry unit (see maps 2-7, 2-8, 2-9, 2-10). The National Park Service would monitor sound conditions and provide operators with monitoring results.

The National Park Service would establish an aircraft overflights working group that would include air tour operators, commercial airlines, the military, and other concerned parties to develop voluntary measures for achieving desired resource conditions at Denali.

In the future, the concessions authorizations process for commercial airplane landings in the national park and preserve would include incentives for meeting voluntary guidelines for assisting the National Park Service in achieving desired future conditions in all management areas.

The National Park Service would reduce the impact of agency flights through improved accountability and application of the minimum tool requirement, as described below under the Administration category.

Airplane Landings

If a transient landing area (gravel bar, for example) on NPS administered lands is removed by natural processes, the National Park Service would generally allow establishment through use (not new construction) of a site of similar character nearby where surface conditions are naturally adequate for landing. Alternatively, activities to retain the exact location of a site would need to be consistent with the method of original establishment and the backcountry character of the site. Simple brushing or removal of debris by hand would generally be allowed at those locations where this plan indicates that use is allowed to continue to occur.

Climbing and Mountaineering

Climbers and mountaineers would be subject to the same overnight camping registration or limited permit systems as other backcountry users, except that the special registration requirements for climbing Mount McKinley and Mount Foraker would remain in place. Climbers and mountaineers would be subject to the same management area constraints as other users. All guided and private climbing expeditions would have a maximum group size of 12. Historic operators such as the National Outdoor Leadership School groups would be an exception to this group size limit. Their expeditions may comprise up to 15 people since these groups make infrequent trips on the Muldrow Glacier route, follow an established trail, have a high instructor to student ratio, and have a history of use at this level since before 1980.

Climbers would be required to remove their human waste from the West Buttress route wherever pit toilets are not provided. This includes the higher camps on the West Buttress and the West Rib cutoff above 14,000 feet. Climbers would be encouraged to remove human waste in other climbing locations, particularly on Mount Foraker and in the Ruth Amphitheater and its surrounding peaks.

The National Park Service would emphasize education about human waste removal during climber orientation, during patrols, in working with mountaineering organizations such as the American Alpine Club, and in distributed publications.

Power drills for climbing activities would be prohibited throughout the park, preserve, and old park.

The following policy for fixed and removable anchors would be implemented:

Removable and fixed anchors, as well as other climbing equipment must be used wisely and be closely managed in order to prevent the degradation of wilderness resources and character. When anchors are necessary for climber safety, removable anchors are desired and highly recommended. Fixed anchors should not be placed merely for convenience.

Fixed anchors (such as webbing, bolts, pitons, chains) currently in place may remain. They may be replaced, or removed, by individual climbers, during a climb, or by the National Park Service during park operations. Safety remains a responsibility of the climber. The agency will not, as a policy or practice, monitor fixed anchors to evaluate their condition. When a climber determines the need for anchor placement or replacement, this must be accomplished in compliance with regulated and permitted standards (for example, power drills may not be used). If unable to do so, the route should remain unclimbed. New, bolt intensive climbing routes such as sport climbs and “bolt ladders” are not appropriate in wilderness and in areas managed as wilderness and would not be allowed.

Placement of new anchors may be allowed when necessary to enable a safe rappel when no other means of descent is possible, to enable emergency retreat, during self-rescue situations and on new routes when ascending a route to connect terrain that is otherwise protected by removable anchors (for example, one crack system or other natural feature to another). Permanent bottom to top fixed anchor routes would not be allowed in wilderness or in areas managed as wilderness, with the exception of the headwall (15,300-16,200 feet) on the West Buttress route of Mount McKinley.

Bicycle Use

Bicycles would continue to be allowed for access to inholdings. Bicycle use would be allowed on constructed mining access routes in the Kantishna Hills and on state rights-of-way. No other bicycle use would be allowed in the backcountry.

Pack Animals

The park would be closed to pack animals except for the following:

- Horses would be allowed on constructed mining routes in the Kantishna Hills. The use of horses in this area would require mandatory registration and the issuance of a special use permit.
- Dogs being used to carry packs would be allowed in the park additions and preserve with the following conditions 1) the animal must be on a leash or under strict voice control at all times; 2) the animal must not harass wildlife.

Bicycle touring can be an exciting way to travel the park road. Photo: Kennan Ward



The Wilderness Act allows for commercial enterprises or services in wilderness when they are “necessary for activities which are proper for realizing the recreational or other wilderness purposes of the areas.”

ACTIONS COMMON

- Sled dogs would be allowed in the entire park and preserve during periods of adequate snow cover on the condition that the dogs be hooked to a gang line as part of a dog sled team or leashed to a skier for skijoring.

GUIDED ACTIVITIES AND COMMERCIAL SERVICES

Guided Activities and Commercial Services Planning

NPS Management Policies 10.2.2 mandates commercial visitor services planning for national parks. While the section covers only concessions contracting specifically, the tests for determining the conditions under which a commercial contract is desirable are also useful for determining the appropriateness of commercial use authorizations and non-commercial guiding. Modified for applicability at Denali, guided activities and commercial services could be provided if they

- 1) Are necessary and appropriate for public use and enjoyment and identified needs are not or cannot be met outside park boundaries.
- 2) Are provided in a manner that furthers protection, conservation, and preservation of the environment and park resources and values.
- 3) Enhance visitor use and enjoyment without causing unacceptable impacts to park resources or values.

For the Denali backcountry, these tests would be interpreted as follows.

- **Guided activities and commercial services are necessary and/or appropriate in the Denali backcountry if they are compatible with the purposes of the park expressed in chapter 1 and they meet at least one of the following criteria:**
 - a) They assist visitors in exploring the backcountry who otherwise would not have the necessary skills (for example, dog mushing, Alaska Range mountaineering, hiking off-trail, winter travel).
 - b) They provide access to areas that are otherwise inaccessible (for example, airplane landings).
 - c) They are consistent with legally guaranteed historic rights of use.
 - d) They depend on the unique character and environment of the Denali backcountry, and the same experience cannot be found in the Denali frontcountry or on nearby public lands.
 - e) They provide education related to park resources and values.
- **Guided activities and commercial services are provided in a manner that furthers protection, conservation, and preservation when:**
 - a) They teach and follow leave-no-trace principles for the sub-arctic wilderness environment.
 - b) They provide education relevant to conservation of park resources and values.
- **Guided activities and commercial services do not cause unacceptable impacts to park resources or values when:**
 - a) Group size and number of groups are consistent with management area designations.
 - b) Groups follow leave-no-trace principles for the sub-arctic wilderness environment.
 - c) The number of visits by groups to any particular area is limited to avoid impacts on vegetation or wildlife usage of the area.
 - d) The guided activities do not disrupt the wilderness integrity of the place, meaning they are consistent with desired conditions for solitude, natural sounds, and other wilderness characteristics for each management area.

Allocation of Guided Activities and Commercial Services

Guided activities could be provided by commercial enterprises, non-profit educational organizations, or by National Park Service interpretive personnel. When a specific alternative allows for particular activities or services, the National Park Service would use the following criteria to determine which is the appropriate entity to deliver the service.

- 1) Backcountry transportation services (for example, air taxis) would be provided by commercial businesses through the concessions permitting process. Allocation of use is addressed in the alternatives below.
- 2) Guided activities requiring a high degree of specialized equipment and knowledge (for example, dog mushing, sport hunting, mountaineering) would be provided by commercial

businesses through the concessions permitting process or by the Denali Science and Learning Center.

- 3) Guided activities to introduce basic off-trail and minimum impact travel techniques could be provided by National Park Service rangers (for example, Discovery Hikes). Denali has a unique resource that many potential hikers find intimidating and that requires care in travel to avoid causing harm to vegetation. To protect the resource and make the Denali backcountry accessible to all visitors interested and capable of exploring the park, it is important to offer a guided option that helps visitors get comfortable with hiking in the backcountry and for which cost is not a deterrent. This principle only applies to the most basic of backcountry experiences – going for a hike in summer or a snowshoe walk or ski in winter.
- 4) Other guided activities – whether in-depth learning of non-technical wilderness travel skills or studying natural and cultural history – would be provided by non-profit educational organizations through the Denali Science and Learning Center or by NPS personnel. Commercial businesses wishing this kind of experience for their clients could contract with the DSLC for this service, although there would be no specific allocation for commercial businesses and DSLC management would set priorities. Activities could include overnight and day trips depending on demand and financial feasibility. Through its joint management of the DSLC, the National Park Service would manage the number of backcountry activities to avoid resource impacts and achieve desired resource and social conditions in each backcountry unit.
- 5) An exception to this framework is that businesses could offer guided hiking under one of the following conditions:
 - a) In all alternatives, businesses with valid historic rights would continue to access the backcountry consistent with the legal mandate of ANILCA. These operators would, however, be subject to the same management provisions (such as group size and number of trips to a particular area) as apply to other similar guided activities in the park backcountry.
 - b) In some alternatives, businesses that already offer guided hikes to their clients could continue to do so under the same terms and at the same level as they do now. These operators would, however, also be subject to the same management provisions as apply to other similar guided activities in the park backcountry.
 - c) Other exceptions as identified in the alternatives.
- 6) If a guided activity takes place in an area where access is subject to a limited permit system, the allowable number of guided parties or guided visitors would generally be less than a majority of the total potential use of the area, in order to allow for non-guided uses.

Specific Activities

Actions for specific guided and commercial activities are included in the alternatives below. No immediate changes are proposed for the following specific guided activities and commercial services:

- Guided mountaineering
- Dog mushing day tours and overnight guided expeditions
- Dog team freight hauling
- Horse rides on constructed mining tracks in the Kantishna Hills
- NPS Discovery Hikes.

Changes to these activities could still be considered in the future using the criteria identified above and the direction given for each alternative.

ADMINISTRATION

To establish greater accountability and minimize impact to wilderness values throughout the park and preserve, all administrative and research activity in the backcountry (even in areas not designated as wilderness) would be subject to the minimum requirement process. This process focuses the evaluation on impacts to wilderness character as well as damage to more tangible resources. When the minimum requirement is determined, the potential disruption of wilderness character and

the physical resource would be considered and given more weight than economic efficiency and convenience. Appendix I describes how the minimum requirement determination would be made.

The National Park Service would improve efforts to provide on- and off-site interpretation regarding the purposes, values, and uses of Denali National Park and Preserve. In keeping with the spirit of the Wilderness Act, the agency would focus on information distribution during the trip planning stages rather than constructing signs and bulletins in the backcountry.

FACILITIES

Communications facilities would be considered primarily in entrance area and road corridor areas; otherwise, they would be considered on a case-by-case basis following the minimum requirement process. New structures would be attached to existing structures wherever possible.

EASEMENTS AND BOUNDARY CHANGES

Easements

The National Park Service would initiate collaborative action with concerned and affected parties in the Cantwell area to acquire an easement over private lands to gain public access to the existing 17(b) easement (EIN 7a C5, DI, L) that provides a route across Ahtna, Inc. land from Cantwell to the park boundary near Windy Creek. See map 2-11.



NPS photo

Land Exchanges

The National Park Service would pursue a land exchange similar to a previously proposed exchange of land with the State of Alaska that would realign the park boundary with the Tokositna, Coffee, and Ruth Rivers (see map 2-12). As a result of the exchange approximately 2,432 acres of Denali State Park land would be transferred to Denali National Park and Preserve and approximately 2,822 acres of national park and preserve land would be transferred to Denali State Park. Land to be transferred to the state surrounds approximately 137 acres of privately owned

inholdings. An additional adjustment would be proposed for the area immediately north of Dutch Creek to provide a boundary that is more identifiable in the field and out of the potential placer mining in that floodplain. Completion of the exchanges and determination of actual boundaries and acreage would depend on the outcome of negotiations with the State of Alaska.

ALTERNATIVE B

Overview

This alternative would emphasize wilderness resource values (including solitude and natural sounds) and opportunities for self-reliant, non-motorized recreation that depend on the wilderness character of the resource. Denali would be distinct from surrounding lands, with a high degree of resource protection, especially in the Old Park.

Alternative B would emphasize wilderness resource values (including solitude and natural sounds) and opportunities for self-reliant, non-motorized recreation that depend on the wilderness character of the resource.

Under this alternative, some uses would be reduced or managed for greater dispersal to enhance resource protection. While some new approved uses could occur, services would be minimized to provide self-reliant experiences. This alternative calls for protecting the wilderness character of the park and preserve by requiring congressional action on wilderness designation before expanding motorized access.

MANAGEMENT AREA DESIGNATIONS

Management area designation would emphasize areas that allow dispersed, wilderness-based recreation but are more restrictive about facilities, motorized uses, and high visitor numbers. Map 2-2 shows the distribution of management areas and the boundaries for new backcountry units throughout the park and preserve; the percentage of the park in each area is as follows:

Management Area	Acreage	% of Park
Natural	2,931,695	49%
Primitive	951,346	16%
Backcountry	0	0%
Mountaineering	9,907	<1%
Old Park	2,135,993	35%

GENERAL AND NON-COMMERCIAL ACTIVITIES

Overnight Camping

See Actions Common to All Action Alternatives.

Airplane Landings – General Aviation

See map 2-13. Airplane landings would be allowed in the Old Park for emergencies and administrative purposes only. Registration would be mandatory for landings in the park additions or preserve. Landings for overnight use would require registration as for all activities (as described under Overnight Camping under Actions Common to All Alternatives).

Aircraft Overflights

Based on management area designations and associated desired conditions, the National Park Service would seek significant reduction in impacts from aircraft noise parkwide through the mechanisms identified in Actions Common to All Action Alternatives.

Snowmobiles

The national park additions and preserve would be closed to snowmobiles except for access to traditional activities such as those mentioned in the Senate report for ANILCA (such as hunting, fishing, berry-picking) until after Congress acts on wilderness designations. The lower Tokositna River in the southeast corner of the Lower Ruth unit (#75) would be an exception in that there would be a travel corridor designated along the riverbed for day use and overnight access (see map 2-17). The Middle Kahiltna Glacier (#78), Upper Yentna-Lacuna (#80), Lower Kahiltna Glacier (#81), Dall-Yentna (#82), Mount Hunter (#76), Upper Ruth (#74), Eldridge Glacier (#72), Buckskin Glacier (#73), and Ohio Creek (#71) units would be closed to all snowmobile use.

After Congress makes wilderness designations, areas not in designated wilderness could be considered for additional, dispersed snowmobile access by permit (see definition of Dispersed Use area under Snowmobiles in Alternatives C, D, or E). Riding snowmobiles on glaciers would be prohibited.

To the extent practical with available technology, the National Park Service would phase in requirements for emissions standards and cleaner, more efficient, and lower-impact snowmobile technology such as four-stroke engines⁴, mandatory mufflers, and paddle tracks less than one inch deep with no metal cleats. The National Park Service would also establish requirements for horsepower or engine size (less than 600cc). The speed limit for snowmobiles in the park would be set at 35 miles per hour.

ALTERNATIVE B

Motorboats

No motorboats would be allowed in the former Mount McKinley National Park. Motorboats would be allowed for access on the Tokositna, Yentna, Kantishna, Bearpaw, and Muddy Rivers. Boaters would be required to register for day use boating. A permit would be required for camping overnight (as with all activities).

Hiking

Registration would be mandatory for all day hikers in all management areas. Adaptive management tools such as setting limits on day hiking in congested areas would be adopted as needed to achieve desired conditions in all areas of the Old Park, park additions, and preserve.

Maximum group size for all hiking and backcountry camping would generally be limited to 12; however, up to 15 could be allowed at the superintendent's discretion if one or more of the following criteria are met:

- The terrain for the hike allows a larger number of participants because resource damage is unlikely (for example, hiking on a gravel bar or trail).
- The frequency of the trips to a particular location is unlikely to result in resource damage.
- The group leader is experienced and trained in leave-no-trace principles for tundra environments generally and Denali National Park in particular.

In all cases larger groups (more than 4 people) would be encouraged to stay on hardened surfaces such as streambeds or glaciers and all groups would not visit the same non-durable area more than twice in one season.

Climbing and Mountaineering

The number of climbers attempting Mount McKinley would be held at existing levels (1,300) for all routes during the main mountaineering season (April 1- August 1). In addition, there would be a limit established for the number of permits issued each day for the initiation of trips on Mount McKinley. The National Park Service would develop this daily start limit collaboratively with mountaineering organizations, concession guide services, and independent climbers. Guided climbing expeditions would be counted toward the daily limit, but there would be no mandatory allocation between guided and unguided expeditions starting on a particular day. Both the season limit and the daily limit would be reevaluated in 10 years after approval of the plan.

Non-Motorized Winter Activities (Skiing, Snowshoeing, Skijoring, Dog Mushing)

Non-motorized winter day users in the park entrance area would be required to register.

Bicycle Use

See Actions Common to All Action Alternatives.

Pack Animals

See Actions Common to All Action Alternatives.



Although the majority of mountaineering is focused on Mount McKinley, climbers can find challenges throughout the park. Photo: Roger Robinson©

GUIDED ACTIVITIES AND COMMERCIAL SERVICES

Only the existing number of businesses, types of guided services, and level of guided services would be allowed. Existing activities would not be expanded beyond the areas where they are already authorized. The following guidance for specific activities applies.

Commercial Airplane Landings

See map 2-13.

- Air taxi landings would be allowed in all Natural, Primitive, and Backcountry Areas. Passengers must have registered and obtained a permit as appropriate for the unit.
- Scenic tour landings could be allowed in Primitive and Backcountry Areas. Each unit under these designations would allow up to 10 scenic landings per year. Landings at established commercial landing areas on the Ruth and Kahiltna Glaciers (see below) would not count toward the landing limit for the unit.
- Established landing areas in the Portal areas at the Ruth Amphitheater and Kahiltna Base Camp would allow a level of use for commercial airplane landings greater than the surrounding area. The number of available overnight camping permits would limit air taxi landings. Scenic tour landings at these areas would not exceed year 2001 numbers: 1,900 in the Ruth and 200 at Base Camp. The Pika Glacier would not be open to scenic tour landings under this alternative. Landings would be allocated among operators based on the proportion of landings during 1999-2001.
- There would be no scenic landings at Kahiltna Base Camp before July 1 each year.

Guided Hiking

- Of commercial operators, only those with historic rights for guided hiking in the Old Park would be allowed to lead guided hikes in the Old Park Special Resource Area. Other operators authorized for guided hiking would be restricted to the areas of the park they presently use.
- All guided hikes would be subject to the group size limit of 15 and required to have a group leader who is experienced and trained in leave-no-trace principles for tundra environments generally and Denali National Park in particular.
- The number of hikes to a particular location *for all groups together* would be strictly limited to two per season, except for hikes on gravel streambeds and in Hiker Areas (on constructed trails).

Commercial Bicycle Touring

There would continue to be no commercial use of bicycles in the park backcountry.

Guided Sport Hunting

Guided sport hunting concessions in the preserve would continue under current concessions management. There would be no change to hunting guide areas.

FACILITIES

Trails

No new trails or routes (either summer or winter) would be added besides those identified in the 1997 *Entrance Area and Road Corridor Development Concept Plan* and the 1997 *South Side Denali Development Concept Plan*. The National Park Service would not participate in the development of a state-wide snowmobile trail system. The park road would remain unplowed until necessary for summer season use.

Information Facilities, Shelters, Campsites

No new information facilities, shelters, cabins, or backcountry campsites would be developed.

ADMINISTRATION

National Park Service Administration and Research

Backcountry patrols by ground and air would be reduced from existing levels, but would be spread out as efficiently as possible to provide some level of patrol activity in every part of the park and preserve. No additional administrative camps would be located in the backcountry. The numbers of staff and patrols would be reduced.

Research projects throughout the backcountry of the park and preserve would be limited to resource studies necessary for effective park management. Researchers would be included in the backcountry quota system.

Alternative C would emphasize highly dispersed recreational uses that are consistent with wilderness values and opportunities for solitude.

EASEMENTS AND BOUNDARY CHANGES

Easements

See Actions Common to All Action Alternatives.

Land Exchanges

See Actions Common to All Action Alternatives.

WILDERNESS SUITABILITY

To provide updated information for congressional action on wilderness designations, wilderness suitability of all lands in the park additions and preserve would be reevaluated to identify and include or exclude lands where the status has changed since the last wilderness suitability inventory.

ALTERNATIVE C

Overview

This alternative would emphasize highly dispersed recreational uses that are consistent with wilderness values and opportunities for solitude. It would allow for both motorized and non-motorized recreation activities, but would limit growth or otherwise manage use levels to provide a quality visitor experience and protect park resources.

Under this alternative, Denali would be distinct from surrounding lands that would have higher levels of recreational uses.

MANAGEMENT AREA DESIGNATIONS

Management area designation would emphasize areas that allow dispersed, wilderness-based recreation, but would provide for some areas that would support more intensive use. Map 2-3 shows the distribution of management areas and the boundaries for new backcountry units throughout the park and preserve; the percentage of the park in each area is as follows:

<u>Management Area</u>	<u>Acreage</u>	<u>% of Park</u>
Natural	2,582,886	43%
Primitive	1,182,628	20%
Backcountry	0	2%
Mountaineering	9,907	<1%
Old Park	2,135,993	35%

GENERAL AND NON-COMMERCIAL ACTIVITIES

Overnight Camping

See Actions Common to All Action Alternatives.

Airplane Landings – General Aviation

See map 2-14. Landings would be allowed in the Old Park for emergencies and administrative purposes only. Pilots would be asked to register voluntarily when making landings in the park additions or preserve. Landings for overnight use would require registration as for all camping (as described under Overnight Camping under Actions Common to All Action Alternatives).

Aircraft Overflights

Based on management area designations and associated desired conditions, the National Park Service would seek moderate reduction in impacts from aircraft noise parkwide through the mechanisms identified in Actions Common to All Action Alternatives.

Snowmobiles

The park additions and preserve would be open for snowmobile use at different levels of activity consistent with desired conditions in management areas. The levels of use and the areas to which they apply are as follows (see map 2-18):

Concentrated Use: In addition to allowing snowmobile use for subsistence activities, wide corridors would be designated in backcountry areas for day use and overnight snowmobile touring and access, including the Bear Creek/Wildhorse Creek area in the southeast corner of the Little Switzerland unit (#79), the Alder Creek/Coffee River area in the southeast corner of the Lower Ruth Glacier unit (#75), along the east and west forks of the Yentna River in the southwest preserve (unit #83), and the Broad Pass area in the Bull River unit (#70) between the western edge of the unit and the Bull River. The National Park Service would temporarily designate these corridors during the winter, and snowmobile access for recreation would be limited to the designated routes. Designation of corridors would be done annually by the superintendent, taking into account snow cover, resource impacts, and other factors that might affect the exact location of the corridor. A permit would be mandatory for use of these areas.

Dispersed Use: Units marked as Dispersed Use on the map would allow snowmobile access for subsistence and for a limited number of day and overnight trips by permit.

Subsistence Use: Units marked as Subsistence Use on the map would allow snowmobile access only for subsistence purposes.

Closed to All Use: The Old Park Special Resource Area would remain closed to all snowmobile access. The Middle Kahiltna Glacier (#78), Upper Yentna-Lacuna (#80), Dall-Yentna (#82), Mount Hunter (#76), Upper Ruth (#74), and Ohio Creek (#71) units would also be closed to all snowmobile access.

Riding snowmobiles on glaciers would be prohibited. To the extent practical with available technology, the National Park Service would phase in requirements for emissions standards and cleaner, more efficient, and lower-impact snowmobile technology, such as four-stroke engines⁴. The National Park Service would also establish requirements for horsepower or engine size (less than 600cc), mandatory mufflers, and paddle tracks less than one inch deep with no metal cleats. The speed limit for snowmobiles in the park would be set at 35 miles per hour.

Motorboats

No motorboats would be allowed in the former Mount McKinley National Park. Motorboats would be allowed for access on the Tokositna, Yentna, Kantishna, Bearpaw, and Muddy Rivers. Boaters would be required to register for day use boating. A permit would be required for camping overnight (as with all activities).

Hiking

Adaptive management tools, such as setting formal limits on day hiking in congested areas, would be adopted as needed to achieve desired conditions in all areas of the Old Park, park additions, and preserve.

Maximum group size for all backcountry hiking and camping would generally be limited to 12; however, up to 15 could be allowed at the superintendent's discretion if one or more of the following criteria are met:

- The terrain for the hike allows a larger number of participants because resource damage is unlikely (for example, hiking on a gravel bar or trail).
- The frequency of the trips to a particular location is unlikely to result in resource damage.
- The group leader is experienced and trained in leave-no-trace principles for tundra environments generally and Denali National Park in particular.

In all cases larger groups (more than 4 people) would be encouraged to stay on hardened surfaces such as streambeds or glaciers and all groups would not visit the same non-durable area more than twice in one season.

Climbing and Mountaineering

The number of climbers attempting to climb Mount McKinley would be held at existing levels (1,300) for all routes during the main mountaineering season (April 1- August 1). There would be no daily limits established. The limit of 1,300 would be reevaluated 10 years after approval of the plan.

Non-motorized Winter Activities (Skiing, Snowshoeing, Skijoring, Dog Mushing)

A voluntary registration system would be implemented for non-motorized winter day users. Additional facilities to support non-motorized winter use would be provided (see Facilities section, below).

Bicycle Use

See Actions Common to All Action Alternatives.

Pack Animals

See Actions Common to All Action Alternatives.

GUIDED ACTIVITIES AND COMMERCIAL SERVICES

Limited new guided activities would be developed as indicated below within the constraints described under Actions Common to All Action Alternatives at the beginning of this chapter. Otherwise, the types of commercial services would remain the same, although existing operators could expand the level of service they provide in the areas they presently use, subject to the same constraints. Actions regarding specific guided activities and commercial services are as follows.

Commercial Airplane Landings

See Airplane Landings, Map 2-14.

- Air taxi landings would be allowed in all Natural, Primitive, and Backcountry Areas. Passengers must have registered and obtained a permit as appropriate for the unit.
- Scenic tour landings could be allowed in Primitive and Backcountry Areas. Each unit under these designations would allow up to 10 scenic landings per year. Landings at established commercial landing areas (see below) would not count toward the landing limit for the unit.
- Established landing areas in the Portal areas at the Ruth Amphitheater and Kahiltna Base Camp would allow a high level of use for commercial airplane landings, and the landing area in the Portal area on the Pika Glacier would allow a moderate level of use for commercial airplane landings. The number of available overnight camping permits would limit air taxi landings. Scenic tour landings at these landing areas would not exceed year 2001 numbers plus 10%: 2,100 in the Ruth, 220 at Base Camp, 190 on the Pika. Landings would be allocated among operators based on the proportion of landings during 1999-2001.
- There would be no scenic landings at Kahiltna Base Camp before July 1.

Guided Hiking

- Existing commercial guided hiking activities in the Old Park, Kantishna Hills, and Dunkle Hills would continue at the same level and in the same places as they presently occur.
- All guided hikes would be subject to the group size limit of 15 and required to have a group leader who is experienced and trained in leave-no-trace principles for tundra environments generally and Denali National Park in particular.
- All groups would have access to the areas they used before the completion of the plan. However, the number of hikes to a particular area *for all groups together* would be strictly limited to two per season except for hikes on gravel streambeds, other durable surfaces, and in Hiker Areas (on constructed trails).
- In addition to the concession-permitted hikes and National Park Service Discovery Hikes, the Denali Science and Learning Center would offer a variety of programs in the Old Park and Kantishna Hills area of the park additions for which backcountry travel would be by foot. These programs could include day trips, overnight expeditions, and field camps.

Commercial Bicycle Touring

There would continue to be no commercial use of bicycles in the park backcountry.

Guided Sport Hunting

Guided sport hunting concessions in the preserve would continue under current concessions management. There would be no change to hunting guide areas.

FACILITIES

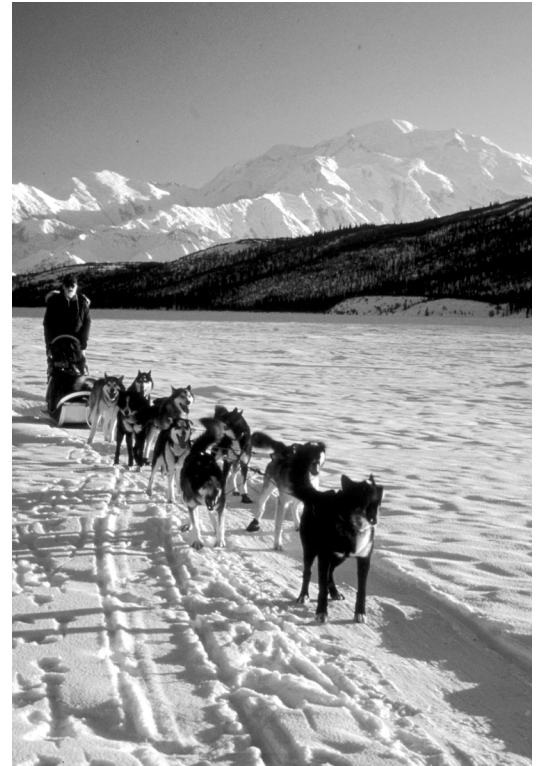
Trails

The National Park Service would temporarily mark snowmobile routes in areas designated for concentrated snowmobile use during the winter. The agency would work cooperatively with the State of Alaska and other adjacent landowners to plan connecting statewide trail systems and improved parking along the Parks Highway during winter for access to activities in Denali National Park. The National Park Service would designate and brush ski trails in the entrance area (Riley Creek area) of the park. No other new summer or winter trails would be added besides those identified in the *1997 Entrance Area and Road Corridor Development Concept Plan* and the *1997 South Side Denali Development Concept Plan*. The park road would remain unplowed until necessary for summer season use.

Information Facilities, Shelters, Campsites

The National Park Service, in cooperation with other land management agencies, would operate a public lands information center in the Cantwell/Broad Pass area. This facility would provide information and registration/permitting for use of the park's backcountry year-round, with a particular focus on serving the needs of winter recreational visitors on the south side of the Alaska Range.

The National Park Service would add visitor facilities at park headquarters such as restrooms, plug-ins, and a warming hut to support winter use. Otherwise, there would be no new facilities besides those already in approved plans.



NPS photo

ADMINISTRATION

National Park Service Administration and Research

The National Park Service would maintain a similar level of administrative presence throughout the backcountry as exists today. Backcountry patrols by ground and air would remain at the same frequency as at present, but would be spread out as efficiently as possible to provide some level of patrol activity in every part of the park and preserve.

The existing administrative camps on Mount McKinley would be maintained. Additional administrative camps could be considered in the park additions and preserve subject to the minimum requirement process, but no new camps could be located in the Old Park Special Resource Area. Park staffing and patrols would remain about the same as at present. The National Park Service would look at ways to reduce administrative presence on the West Buttress.

Research projects in the Old Park Special Resource Area would be limited to resource studies necessary for effective park management. In the backcountry of the park additions and preserve, research projects could also be permitted if they are part of national governmental research initiatives such as the National Inventory and Monitoring program. Researchers could be granted exceptions to the backcountry quota system subject to the minimum requirement process and subject to a determination that the research is sufficiently important to park management or the

The Preferred Alternative would provide for expanded recreational opportunities in many areas of the park and preserve for activities that are particularly well suited to the unique character of Denali.

advancement of scientific knowledge and understanding. However, research activities would still need to be consistent with the encounter rate standards for the management areas in which they occur.

EASEMENTS AND BOUNDARY CHANGES

Easements
See Actions Common to All Action Alternatives.

Land Exchanges
See Actions Common to All Action Alternatives.

WILDERNESS SUITABILITY

The National Park Service would reevaluate the suitability of lands in the park additions and preserve for wilderness designation after a substantial number of the remaining mining claim validity determinations and acquisitions in the Kantishna Hills are completed.

ALTERNATIVE D

The Preferred Alternative

Overview
The National Park Service would provide for expanded recreational opportunities in many areas of the park and preserve for activities that are particularly well suited to the unique character of Denali. When use levels grow to match the management vision for a particular unit, they would be capped. Patterns and types of use would be somewhat similar to current conditions, but increases in levels of use would be noticeable at several locations.

The preferred alternative would consider Denali National Park and Preserve in a regional context and provide for wilderness experiences that may not always be available on adjacent lands.

MANAGEMENT AREA DESIGNATIONS

Management area designation would provide for a wide spectrum of recreational opportunities in a diversity of settings while still remaining consistent with the vision that Denali primarily offers a wilderness experience. Map 2-4 shows the distribution of management areas and the boundaries for new backcountry units throughout the park and preserve. The percentage of the park in each area is as follows:

Management Area	Acreage	% of Park
Natural	2,268,169	38%
Primitive	1,404,336	23%
Backcountry	210,536	3%
Mountaineering	9,907	<1%
Old Park	2,135,993	35%

Additional Hiker Areas would be designated to include the new trails at Eielson Visitor Center and Wonder Lake Campground described under “Facilities.”

The Old Park Special Resource Area includes management zoning from “1997 Entrance Area and Road Corridor Development Concept Plan” during the summer season.

GENERAL AND NON-COMMERCIAL ACTIVITIES

Overnight Camping

See Actions Common to All Action Alternatives.

Airplane Landings – General Aviation

Landings would be allowed in the Old Park for emergencies only. Pilots would be asked to register voluntarily when making landings in the park additions or preserve. Landings for overnight use would require registration as for all activities (as described under Overnight Camping under Actions Common to All Alternatives). See map 2-15.

Aircraft Overflights

Based on management area designations and associated desired conditions, the National Park Service would seek localized reductions in impacts from aircraft noise through the mechanisms identified in Actions Common to All Action Alternatives.

Snowmobiles

The park additions and preserve would be open for snowmobile use at different levels of activity consistent with desired conditions in management areas. The levels of use and the areas to which they apply are as follows (see map 2-19):

Concentrated Use: In addition to allowing snowmobile use for subsistence, wide corridors would be designated in backcountry areas for day use and overnight touring and access. Areas would include the Bear Creek/Wildhorse Creek area in the southeast corner of the Little Switzerland unit (#79), the Alder Creek/Coffee River area in the southeast corner of the Lower Ruth Glacier unit (#75), along the east and west forks of the Yentna River in the southwest preserve (unit #83), and the Broad Pass area in the Bull River unit (#70) between the western edge of the unit and Cantwell Creek. The National Park Service would temporarily mark these corridors during the winter, and snowmobile access for recreation would be limited to the marked routes. Designation of corridors would be done annually by the superintendent, taking into account snow cover, resource impacts, and other factors that might affect the exact location of the corridor. Registration for use of these areas would be mandatory.

Dispersed Use: Units marked as Dispersed Use on the map would allow snowmobile access for subsistence and for a limited number of day and overnight trips by permit.

Subsistence Use: Units marked as Subsistence Use on the map would allow snowmobile access only for subsistence purposes.

Closed to All Use: The Old Park Special Resource Area would remain closed to all snowmobile access. The Middle Kahiltna Glacier unit (#78) would also be closed to all snowmobile access.

To ensure NPS personnel have the opportunity to brief snowmobile users on glacier hazards, visitors must register and obtain a special use permit to ride a snowmobile on glaciers in the park and preserve. To the extent practical with available technology, the National Park Service would phase in requirements for emissions standards and cleaner, more efficient, and lower-impact snowmobile technology such as four-stroke engines⁴, mandatory mufflers, and paddle tracks less than one inch deep with no metal cleats. The speed limit for snowmobiles in the park would be set at 35 miles per hour.

Motorboats

No motorboats would be allowed in the former Mount McKinley National Park. Motorboats would

Most snowmobile users enter the park and preserve from the Parks Highway on the south side of the Alaska Range. NPS photo



be allowed for access on the Tokositna, Yentna, Kantishna, Bearpaw, and Muddy Rivers. Additionally, motorboats would be allowed on the lower Toklat River, lower East Fork Toklat River, and lower Moose Creek for overnight use only. Boaters would be required to register for day use boating. A backcountry permit would be required for camping overnight (as with all activities).

Hiking

Adaptive management tools such as setting limits on day hiking in congested areas would be adopted as needed to achieve desired conditions in all areas of the Old Park, park additions, and preserve.

Maximum group size for all hiking and backcountry camping would generally be limited to 12; however, up to 15 could be allowed at the superintendent's discretion if one or more of the following criteria are met:

- The terrain for the hike allows a larger number of participants because resource damage is unlikely (for example, hiking on a gravel bar or trail).
- The frequency of the trips to a particular location is unlikely to result in resource damage.
- The group leader is experienced and trained in leave-no-trace principles for tundra environments generally and Denali National Park in particular.

In all cases larger groups (more than 4 people) would be encouraged to stay on hardened surfaces such as streambeds or glaciers and all groups would not visit the same non-durable areas more than twice in one season.

Climbing and Mountaineering

The number of available permits for climbers attempting to climb Mount McKinley would increase to 1,500 during the main mountaineering season (April 1- August 1). There would be no daily limits established. The limit of 1,500 would be reevaluated in 10 years after approval of the plan.

Non-Motorized Winter Activities (Skiing, Snowshoeing, Skijoring, Dog Mushing)

A voluntary registration system would be implemented for non-motorized winter day users. Also note that additional facilities to support non-motorized winter use would be provided (see Facilities section, below).

Bicycle Use

See Actions Common to All Action Alternatives.

Pack Animals

See Actions Common to All Action Alternatives.

GUIDED ACTIVITIES AND COMMERCIAL SERVICES

New guided activities could be developed or permitted subject to the constraints described under Management Framework at the beginning of the chapter. Existing guided services could expand their offerings subject to the same constraints. The National Park Service would take the following specific actions related to guided and commercial services.

Commercial Airplane Landings

See map 2-15.

- Air taxi landings would be allowed in all Natural, Primitive, and Backcountry Areas. Passengers must have registered and obtained a permit as appropriate for the unit.
- Scenic tour landings could be allowed in Primitive and Backcountry Areas with contract provisions to achieve desired resource conditions. Established landing areas in Portal areas at the Ruth Amphitheater, Kahiltna Base Camp, and Pika Glacier would allow higher levels of scenic tour use than would be true of the surrounding management area. The National Park Service would work with concession operators to develop these provisions, which would be included in future commercial use authorizations. The National Park Service would also conduct visitor capacity studies in high use areas.
- There would be no prohibition on scenic landings at Kahiltna Base Camp during the climbing season.

Guided Hiking

- Existing commercial guided hiking activities in the Old Park, Kantishna Hills, and Dunkle Hills would continue at the same level and in the same places as they presently occur.
- Guided activities by commercial businesses that are incidental to an authorized frontcountry activity (for example, traveling the park road to access inholdings) could be authorized but would be restricted to developed trails.
- All guided hikes would be subject to the group size limit of 15 and required to have a group leader who is experienced and trained in leave-no-trace principles for tundra environments generally and Denali National Park in particular.
- Except for hikes on gravel streambeds, other durable surfaces, and in Hiker Areas on constructed trails, the number of hikes to a particular area *for all groups together* would be strictly limited to two per season.
- In addition to the concession-permitted hikes and National Park Service Discovery Hikes, the Denali Science and Learning Center would offer a variety of programs in the Old Park and Kantishna Hills area of the park additions for which backcountry travel would be by foot. These programs could include day trips, overnight expeditions, and field camps.

Commercial Bicycle Touring

Kantishna lodges could be authorized to provide guided bicycle day trips for their guests on constructed mining access routes in the Kantishna Hills.

Guided Sport Hunting

The National Park Service would expand the two existing guide areas to encompass all of the southwest preserve. The center of the West Fork Yentna valley would be the approximate dividing line between the two areas.

FACILITIES

Trails

The National Park Service would temporarily mark several snowmobile routes during the winter in areas designated for concentrated snowmobile use. The agency would work cooperatively with the State of Alaska and other adjacent landowners to plan connecting statewide trail systems and improved parking along the Parks Highway during winter for access to activities in Denali National Park.

The National Park Service would designate and brush ski trails in the entrance area (Riley Creek area) of the park.

The National Park Service would construct a loop trail from Eielson Visitor Center to Gorge Creek and a loop trail from the water tower above Wonder Lake Campground up to the bench west of Wonder Lake in addition to those trails identified in the *1997 Entrance Area and Road Corridor Development Concept Plan* and the *1997 South Side Denali Development Concept Plan*. The National Park Service would establish additional designated trails in heavily used backcountry management areas only if there are no other means to prevent resource damage and if consistent with the desired conditions of the management area.

During winter months park maintenance crews would pack snow on the eastbound lane of the park road to mile 7 as needed to allow heavy equipment to keep overflow ice from developing on the roadway. They would leave undisturbed snow for dog sleds and unplowed snow in the westbound lane for ski tracks. If there were sufficient snow on the spring trail from Headquarters for safe travel by ski, skijor, and dog sled by March 1, the road would be plowed to Savage Campground. Otherwise, the park road would remain unplowed until necessary for summer season use.

Information Facilities, Shelters, Campsites

The National Park Service, in cooperation with other land management agencies, would operate a public lands information center in the Cantwell/Broad Pass area. This facility would provide information and registration/permitting for use of the park's backcountry year-round, with a particular focus on serving the needs of winter recreational visitors on the south side of the Alaska Range.

The National Park Service would add facilities along the first few miles of the park road corridor as necessary to support winter use. In priority order, these facilities would include:

- restrooms, plug-ins, and a warming hut at park headquarters
- day use warming shelters (wall tents) at Mile 7



Popular glacier destinations have seen substantial growth over the past decade. Photo: Roger Robinson®

ADMINISTRATION

National Park Service Administration and Research

The National Park Service would slightly increase administrative presence in the backcountry. The National Park Service would maintain the current level of ground and air backcountry patrol presence in the Old Park Special Resource Area, with a modest increase in the park additions and preserve to effect management area designation and permit requirements.

The existing administrative camps on Mount McKinley would be maintained. Additional administrative camps could be considered anywhere in the park and preserve subject to the minimum requirement process.

In the backcountry of the entire park and preserve, research projects would be limited to resource studies necessary for effective park management and projects that are part of national governmental research initiatives, such as the National Inventory and Monitoring program. Researchers could be granted exceptions to the backcountry quota system subject to the minimum requirement process and subject to a determination that the research is sufficiently important to park management or the advancement of scientific knowledge and understanding. However, research activities would still need to be consistent with the encounter rate standards for the management areas in which they occur.

EASEMENTS AND BOUNDARY CHANGES

Easements

See Actions Common to All Action Alternatives.

Alternative E would emphasize expanded visitor services, additional facilities, and increased motorized access for backcountry users.

Land Exchanges
See Actions Common to All Action Alternatives.

WILDERNESS SUITABILITY

The National Park Service would reevaluate the suitability of lands in the park additions and preserve for wilderness designation after a substantial number of the remaining mining claim validity determinations and acquisitions in the Kantishna Hills are completed.

ALTERNATIVE E

Overview
This alternative would emphasize expanded visitor services, additional facilities, and increased motorized access for backcountry users. A variety of uses would be accommodated throughout the park, and new forms and levels of recreational uses would be allowed in the park additions and preserve, while protecting resources. The experiences at Denali would more resemble those associated with surrounding lands.

New facilities would be added in the entrance area and on the south side as in Alternative D. There would be some expansion of existing uses in the Old Park, with modest expansion of uses in the park additions and preserve. There would be minimal reductions of or redistribution of existing uses even in congested areas. This alternative would allow additional types of use not presently occurring but consistent with laws, regulations, and management policies. As types and levels of use increase, so too would administrative presence.

MANAGEMENT AREA DESIGNATIONS

Management area designation would emphasize greatly expanded visitor services, facilities, and increased access for backcountry users. Map 2-5 shows the distribution of management areas and the boundaries for new backcountry units throughout the park and preserve; the percentage of the park in each area is as follows:

Management Area	Acreage	% of Park
Natural	893,796	17%
Primitive	1,787,979	28%
Backcountry	1,201,267	20%
Mountaineering	9,907	<1%
Old Park	2,135,993	35%

Additional Hiker Areas would be designated to include the new trails in the Eielson Visitor Center and Wonder Lake Campground areas described under “Facilities.”

GENERAL AND NON-COMMERCIAL ACTIVITIES

Overnight Camping
See Actions Common to All Action Alternatives.

Airplane Landings – General Aviation
Units 21, 22, 44, 48 in the western part of the Old Park would be open for general aviation landings, with pilots required to register. Landings would be allowed in other units of the Old Park for emergencies only. Pilots would be asked to register voluntarily when making landings in the park additions or preserve. Landings for overnight use would require registration as for all activities (as described in Overnight Camping under Actions Common to All Alternatives). See map 2-16.

Aircraft Overflights

Based on management area designations and associated desired conditions, the National Park Service would accommodate additional noise intrusions in some areas and protect existing park soundscapes in other areas through the mechanisms identified in Actions Common to All Action Alternatives.

Snowmobiles

The park additions and preserve would be open for snowmobile use at different levels of activity consistent with desired conditions in management areas. The levels of use and the areas to which they apply are as follows (See map 2-20):

Concentrated Use: In addition to allowing snowmobile use for subsistence, wide corridors would be designated in backcountry areas for day use and overnight touring and access. The areas include accessible portions of the Lower Ruth Glacier unit (#75), Tokositna Glacier unit (#77), and the Little Switzerland unit (#79); along the east and west forks of the Yentna River (unit #83), the Mount Dall unit (#84), and the Kichatna Mountains (#85) in the southwest preserve; in the Bull River unit (#70), except the easternmost corner, and the Ohio Creek unit (#71) in the Broad Pass area; and the three Stampede units (#61-63). The National Park Service would temporarily mark these corridors during the winter and snowmobile access for recreation would be limited to the marked routes. Designation of corridors would be done annually by the superintendent, taking into account snow cover, resource impacts, and other factors that might affect the exact location of the corridor. Registration for use of these areas would be mandatory.

Dispersed Use: Units marked as Dispersed Use on the map would allow snowmobile access for subsistence and for a limited number of day and overnight trips by permit.

Subsistence Use: All of the park additions and preserve would remain open to snowmobile access for subsistence purposes.

Closed to All Use: The Old Park Special Resource Area would remain closed to all snowmobile access.

To ensure NPS personnel have the opportunity to brief snowmobile users on glacier hazards, visitors must register and obtain a special use permit in to ride a snowmobile on glaciers in the park and preserve. The National Park Service would encourage, rather than require, the use of snowmobiles that lessen impact on park resources. Snowmobiles with four-stroke engines⁴, mufflers, and paddle tracks less than one inch deep with no metal cleats would be recommended. The speed limit for snowmobiles would remain set at 45 miles per hour.

Motorboats

No motorboats would be allowed in the former Mount McKinley National Park. Motorboats would be allowed for access on the Tokositna, Yentna, Kantishna, Bearpaw, and Muddy Rivers. Additionally, motorboats would be allowed on the lower Toklat River, lower East Fork Toklat River, Caribou Creek, Glacier Creek, Clearwater River, lower McKinley River, lower Birch Creek, and lower Moose Creek for overnight use only. Boaters would be required to register for day use boating. A backcountry permit would be required for camping overnight (as with all activities).

Hiking

Adaptive management tools such as setting limits on day hiking in congested areas would be adopted as needed to achieve desired conditions in all areas of the Old Park, park additions, and preserve.

There would be no maximum group size for day hiking, but all commercial and private groups would be encouraged to limit group size to 15 or fewer. In all cases groups of more than 4 people would be encouraged to stay on hardened surfaces, such as streambeds or glaciers, and all groups would not visit the same non-durable areas more than twice in one season.

Climbing and Mountaineering

There would be no annual or daily limits established for the number of climbers attempting to climb Mount McKinley while the National Park Service gathered additional information on social and

resource carrying capacity. The possibility of setting a limit would be reevaluated 5 years after approval of the plan once additional information is available.

Non-Motorized Winter Activities (Skiing, Snowshoeing, Skijoring, Dog Mushing)

A voluntary registration system would be implemented for non-motorized winter day users. Additional facilities to support non-motorized winter use would be provided (see Facilities section, below).

Bicycle Use

See Actions Common to All Action Alternatives.

Pack Animals

See Actions Common to All Action Alternatives.

GUIDED ACTIVITIES AND COMMERCIAL SERVICES

The National Park Service would actively seek to diversify guided offerings consistent with the constraints outlined under Management Framework at the beginning of the chapter. Offerings such as dog sled trips on the Eldridge or Kahiltna Glaciers during the summer or guided day trips to the Ruth Amphitheater including a glacier trek or guided photography expedition would be considered. The following specific actions would be taken.



Airplane and dog sled: two modes of transportation in Alaska. NPS photo

Commercial Airplane Landings

See map 2-16.

- Air taxi landings would be allowed in all Natural, Primitive, and Backcountry Areas. Passengers must have registered and obtained a permit as appropriate for the unit.
- Scenic tour landings could be allowed in Primitive and Backcountry Areas with contract provisions to achieve desired resource conditions. Established landing areas in Portal areas at the Ruth Amphitheater, Kahiltna Base Camp, and Pika Glacier would allow higher levels of scenic tour use than would be true of the surrounding management area. The National Park Service would work with concession operators to develop these provisions, which would be included in future commercial use authorizations. The National Park Service would also conduct visitor capacity studies in high use areas.
- There would be no prohibition on scenic landings at Kahiltna Base Camp during climbing season.

Guided Hiking

- Existing commercial guided hiking activities in the Old Park, Kantishna Hills, and Dunkle Hills would continue at the same level and in the same places as they presently occur.
- Guided activities by commercial businesses that are incidental to an authorized frontcountry activity, such as traveling the park road to access inholdings, could be authorized but would be restricted to developed trails. Other businesses could be authorized through a concessions authorization to guide hikes for their clients on entrance area trails east of park headquarters.
- All guided hikes would be asked to observe a voluntary group size limit of 15 and to choose group leaders who are experienced and trained in leave-no-trace principles for tundra environments generally and Denali National Park in particular.
- The number of hikes to a particular area *for all groups together* would be strictly limited to two per season, except for hikes on gravel streambeds, other non-durable surfaces, and in Hiker Areas (on constructed trails).
- In addition to the concession-permitted hikes and National Park Service Discovery Hikes, the Denali Science and Learning Center would offer a variety of programs in the Old Park and Kantishna Hills area of the park additions for which backcountry travel would be by foot. These programs could include day trips, overnight expeditions, and field camps.

Commercial Bicycle Touring

Kantishna lodges could be authorized to provide guided bicycle day trips for their guests on constructed mining access routes in the Kantishna Hills.

Guided Sport Hunting

At the time of the next concession contract renewal, the National Park Service would allow for two additional guide areas. A total of three guide areas would be evenly proportioned across the entire southwest preserve. One guide area would be added in the southern portion of the northwest preserve.

FACILITIES

Trails

The National Park Service would temporarily mark and groom approximately 17.8 miles of snowmobile trails during the winter in areas designated for concentrated snowmobile use. In addition, the NPS would temporarily mark several snowmobile routes in areas designated for concentrated snowmobile use. The agency would work cooperatively with the State of Alaska and other adjacent landowners to plan connecting statewide trail systems and improved parking along the Parks Highway during winter for access to activities in Denali National Park.

The National Park Service would designate and brush ski trails in the entrance area (Riley Creek area) of the park. Trail grooming would be done in the most commonly used areas along the accessible portions of the park road. The spring multi-use trail would be upgraded through widening and straightening to make it usable in early winter low snow conditions, and it would be extended from Mile 7 to Savage Campground.

The National Park Service would construct a loop trail from Eielson Visitor Center to Gorge Creek, a loop trail from the water tower above Wonder Lake Campground up to the bench west of Wonder Lake, and a trail from the west end of the Thorofare Bluffs down to the Thorofare River bar, in addition to those identified in the *1997 Entrance Area and Road Corridor Development Concept Plan* and the *1997 South Side Denali Development Concept Plan*. An additional length of trail would be added to the one traversing the slope north of Eielson Visitor Center (*1997 Entrance Area and Road Corridor Development Concept Plan*) so the trail would follow the ridge above the visitor center and drop down to the road at the end of the Thorofare Bluffs. A 10-mile loop trail near the southern boundary of the Little Switzerland unit (#79) would also be constructed.

The National Park Service could establish additional designated trails to provide for expanding use.

The park road would be plowed to Savage Campground throughout the winter.

Information Facilities, Shelters, Campsites

The National Park Service, in cooperation with other land management agencies, would operate a public lands information center in the Cantwell/Broad Pass area. This facility would provide information and registration/permitting for use of the park's backcountry year-round, with a particular focus on serving the needs of winter recreational visitors on the south side of the Alaska Range.

In cooperation with Alaska State Parks, the National Park Service would propose construction of public use cabins along the southern park boundary.

The park road would be kept open to the Savage Campground area throughout the year, and that would become the base for winter activities in that part of the Old Park. The National Park Service would add facilities along this section of the park road corridor as necessary to support winter use. These facilities would include:

- restrooms, plug-ins, and a warming hut at park headquarters
- day use warming shelter (wall tent) at Mile 7 and Savage Campground

Up to three designated campsites could be established in the lower elevations of the Little Switzerland unit (#79).

Alternatives B, C, and D would attain a wide range of beneficial uses of the environment in the form of recreational opportunity without significant degradation of important park resources such as wildlife and wilderness that are identified in Denali's enabling legislation.

The National Park Service would allow for facilities for onsite air traffic management in the Ruth Amphitheater similar to what exists at Kahiltna Base Camp.

ADMINISTRATION

National Park Service Administration and Research

Administrative presence in the park's backcountry would increase. The National Park Service would increase the level of administrative presence throughout the park and preserve to effect management area designation and to provide for additional recreational uses.

The administrative camps on Mount McKinley would be maintained, and additional administrative camps could be considered anywhere in the park and preserve subject to the minimum requirement process.

The National Park Service would require the concession-permitted air taxi services to provide onsite air traffic management in the Ruth Amphitheater similar to what exists at Kahiltna Base Camp (base camp manager coordinates incoming and outgoing flights).

The National Park Service would encourage a variety of research activities in the park. Approval of all research would be subject to the minimum requirement process, but the entire park would potentially be open for research activities, even for projects that undertake basic research unrelated to park resource management or national program initiatives. Exceptions to both the backcountry quota system and the encounter rate standards could be granted to researchers subject to the minimum requirement process and subject to a determination that the research is sufficiently important to park management or the advancement of scientific understanding.

EASEMENTS AND BOUNDARY CHANGES

Easements

See Actions Common to All Action Alternatives.

Land Exchanges

See Actions Common to All Action Alternatives.

WILDERNESS SUITABILITY

The National Park Service would not reevaluate lands in the park additions and preserve to determine if wilderness suitability designations should be changed.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The National Environmental Policy Act (Sec. 101 NEPA, 1969) criteria for the environmentally preferred alternative or alternatives include those that:

- fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- ensure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings.
- attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences.
- preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice.
- achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities.
- enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.



Photo Rick McIntyre

Based on these criteria, the NPS has identified alternatives B, C, and D as the environmentally preferred alternatives for this plan. Each of these alternatives would attain a wide range of beneficial uses of the environment in the form of recreational opportunity without significant degradation of important park resources such as wildlife and wilderness that are identified in Denali's enabling legislation. These benefits would also be obtained without risk of health and safety. Additionally, each alternative would achieve a reasonable balance between population and resource use that allows for positive socioeconomic benefits for local communities and the opportunity for diverse recreational opportunities. These three alternatives would allow the NPS to preserve important historic, cultural, and natural aspects of our national heritage as detailed in Chapter 4, Environmental Consequences.

Alternative A would result in impairment of several of the park's natural and aesthetic resources — including wilderness character and natural soundscapes — and in significant degradation of wildlife and vegetation resources. These negative impacts would constitute a failure in achieving the purpose of the Organic Act to preserve the environment for succeeding generations and to preserve the important natural aspects of the nation's heritage. Additionally, this alternative would risk visitor safety and ultimately fail to provide an environment that supports diversity and variety of individual choice.

Alternative E would provide recreational opportunities for some users and enhance socioeconomic benefits, but would fail to attain the widest range of beneficial uses of the national park and preserve and could allow significant degradation in several park resources. Wildlife, vegetation, natural soundscapes, and wilderness would all suffer at least a moderate level of decline under this alternative, although not to the point that they are impaired. Alternative E does not meet the criteria outlined above to be identified as an environmentally preferred alternative.

ALTERNATIVES CONSIDERED BUT NOT ANALYZED FURTHER

There were several specific alternatives brought up during scoping that were considered but not evaluated further for reasons explained below.

Prescriptive Overflight Management

Some public comments during the scoping phase of the plan requested that the National Park Service aggressively manage overflight traffic above Denali National Park and Preserve. The NPS newsletter on preliminary alternatives in early 2001 responded to this concern by suggesting that in

some alternatives existing overflight routes could be removed to create zones of the park free of aircraft noise. After discussions with the Federal Aviation Administration, the air tour industry, and other aircraft users about the difficulties of implementation and the impact on various aircraft enterprises and operators, the National Park Service determined that a collaborative approach would be best for successful resolution of overflight issues.

Self-Regulation of Scenic Air Tour Landings

Representatives of the air tour industry suggested that there was a need for an alternative in which the industry self-regulated glacier landings on the south side of the Alaska Range. These representatives believed that the air services offering glacier landings have a significant financial stake in providing a safe and positive experience to visitors, and given limited landing and parking locations the number of landings is self-limiting. However, the National Park Service determined that it has a legal responsibility to manage commercial activities in the park and preserve in consultation with the industry and the public and cannot turn its management responsibilities for park lands over to the industry.

Additional Management Areas

The National Park Service considered using additional and different management area definitions to describe management goals and acceptable management tools for the park additions and preserve. At the Alaska region level, the NPS internally developed many of the additional management area definitions considered. After extensive testing of these additional management area definitions during public consultation, it was determined that the five major categories used in the draft plan would provide the simplest and easiest to comprehend complete set of alternatives consistent with park purposes and the vision for the park backcountry.

PLAN IMPLEMENTATION

Adaptive Management

This plan would be implemented using adaptive management. Since the park recognizes the need to make decisions on the best available information, it will continue to gather new information, learn from previous efforts, and adapt the plan as necessary. The National Park Service would gather information from visitor registration and surveys as well as from the monitoring of soundscapes, wildlife, and other resources. Adaptation and change to the plan can be expected as monitoring continues, new science and information is obtained, new tools and equipment are developed, and new opportunities and circumstances arise.

A principal tool used in adaptive management would be the annual plan review. Topics addressed would include:

- Permit Conditions
- Snowmobile operation and grooming within snowmobile corridors
- Unit Quotas
- Length-of-Stay and Other Restrictions
- Closures
- Operation of Registration and Permit Systems
- Maintenance at airplane landing sites
- Motorboat permit conditions

Under this process the National Park Service would:

1. Collect information on proposed changes from park management and the public.
2. Present information on proposed changes to the above topics for public review.
3. Conduct public meetings in the Denali National Park area.
4. Finalize changes for the upcoming year and make this information available to the public.

Research and monitoring may indicate the need for significant changes that cannot be accomplished within the scope of the annual plan review because they require changing the backcountry management plan itself. In these cases, the National Park Service would notify the public and perform any

appropriate environmental compliance. These future management actions may include:

1. Significant new permit conditions.
2. User fees for activities that require NPS administrative presence and management.
3. Advance registration for some activities, such as climbing popular routes and/or popular mountains.
4. Setting quotas for overnight camping in units that presently have no quota.
5. Significantly adjusting backcountry unit boundaries or management area designations.
6. Adjusting locations and lengths of designated ski trails and snowmobile corridors.
7. Setting limits on day use in congested areas.

Regulatory Implementation

Regulations that may be required to implement the actions proposed in alternatives B, C, D, and E are summarized in Table 2-5, Regulations Required to Implement Proposed Actions. Regulations would be proposed for public review, following rulemaking procedures outlined in National Park Service and Department of the Interior regulations.

Indicators and Standards for Denali Wilderness and Backcountry

A backcountry management plan requires effective monitoring to evaluate progress toward stated goals and desired conditions. Effective monitoring necessitates developing indicators and standards of quality in social and biophysical conditions (Hendee et al. 1990). Monitoring through indicators and standards is important for achieving the core values of Denali National Park.

The application of indicators and standards can help managers preserve the wilderness character of Denali by establishing baseline conditions and determining the limits of acceptable change that can occur in each of its management areas (Stankey et al. 1985). Exactly what kind of data should be collected and by what means is an evolving field for wilderness managers. The challenge is to measure and evaluate certain indicators that mirror important attributes of biophysical and social conditions in wilderness (Merigliano and Krumpke 1986). As indicated in the rest of this plan, the “wilderness” of Denali includes both designated and suitable wilderness, and the same indicators are useful for measuring conditions in both.

Although many attributes are associated with the backcountry of Denali, two of them—naturalness and solitude—are most frequently described in popular literature and in the law. Both attributes are potentially sensitive to the use an area receives; an excessive number of users can affect the quality of the natural setting, as well as the sense of solitude that park visitors can experience. As use levels rise, these attributes can be jeopardized to the point that the area no longer constitutes wilderness in either the conventional or legal sense.

Visitor capacity is the term used to describe the amount, type, and distribution of use that can occur in the various management areas of Denali without leading to unacceptable impacts to park resources or visitor experiences. Ultimately, this management plan seeks to determine at what point social and environmental conditions in the backcountry become inconsistent with the Wilderness Act and the legislative mandates for Denali. Each management area described in the plan implicitly carries some limit to the type and amount of recreational or administrative use that it can absorb. Indicators allow managers to choose which attributes best describe these areas. Standards help to measure when these indicators have reached their prescribed limits, as well as the various actions to be considered when these limits are exceeded (Hendee et al. 1990). Standards are specific to each management area.

Indicators

Indicators are specific, measurable variables reflecting the essence of management objectives and desired future conditions. Singly or in combination, they are indicative of the condition of an overall management area. These variables allow managers to clearly define desired conditions and to assess the effectiveness of various management actions (Johnson 1999 and Hendee et al. 1990). The following attributes are characteristic of useful indicators.

Table 2-6: Regulations Required to Implement Proposed Actions

COMMON ACTIONS	EXISTING REGULATIONS	PLAN IMPLEMENTATION
Overnight Camping	Camping at designated areas is allowed in the road corridor and at Wonder Lake in accordance with 36 CFR 13.63(b). In other areas camping is allowed in accordance with the existing backcountry management plan.	Clarify existing special park regulations for management areas.
Airplane Landings and Overflights	The operation of fixed-wing aircraft is allowed, except for subsistence taking of fish and wildlife in the park additions, in accordance with 43 CFR 36.11(f).	Adopt or revise special park regulations for any closures or restrictions.
Snowmobiles	Snowmobile use, subject to various restrictions [see 36 CFR 2.18(a), (b), (d), (e); 13.63(h)(3); 43 CFR 36.11(a)(2), (c), and state law] is allowed for traditional activities, travel to and from villages and home sites, and for subsistence activities.	Adopt or revise special park regulations for route designations and management of snowmobile use.
Motorboats	The use of motorboats is currently allowed in all of Denali National Park and Preserve.	Adopt or revise special park regulations for closures, route designations and management of motorboat use.
Hiking and Other Non-Motorized Activities	These activities are currently subject to various regulations in 36 CFR.	New restrictions on these activities, such as permit/registration requirements or group size limits, would be adopted through promulgation of special park regulations.
Climbing and Mountaineering	Climbing and mountaineering are not regulated as discrete activities besides a registration requirement for Mt. McKinley and Mt. Foraker in accordance with 36 CFR 13.63(f)	Adopt or revise special park regulations for numbers of climbers on Mount McKinley.
Non-Motorized Winter Recreation	Various winter activities are prohibited on park roads and parking areas and otherwise restricted by 36 CFR 2.19. Non-motorized surface transportation is allowed under 43 CFR 36.11(e) and some means are authorized for subsistence under 13.46(a).	Adopt or revise special park regulations for any closures or restrictions.
Bicycle Use	Bicycle use is allowed on park roads, parking areas, and designated routes by 36 CFR 4.30. To the extent bicycles are considered a non-motorized method of surface transportation, they are allowed by 43 CFR 36.11(e).	Adopt or revise special park regulations for route designations.
Pack Animals	Stock use is allowed in accordance with 36 CFR Part 2.16 and 43 CFR Part 36.11 (h) and 13.46 (c).	Adopt special park regulations for stock use, pack dogs, and permit conditions.
Guided and Commercial Activities	Guided and commercial activities are prohibited except as allowed by 36 CFR part 5, subpart D of part 13, and part 51. Filming activities are prohibited except as allowed by 43 CFR part 5 and 36 CFR 5.5	New or revised concessions regulations would not be necessary because concession permits and contracts are routinely made subject to existing and prospective closures and restrictions.
Research and Administrative Uses	Administrative activities, as defined at 36 CFR 1.4, are allowed in accordance with 36 CFR 1.2(d). Research is allowed in accordance with 36 CFR 2.5, 43 CFR 3.3, and 37.12(b). Also, the DOI regulations and policy statement for the management of fish and wildlife resources at 43 CFR part 24 may affect wildlife research.	Administrative uses are tied to park management plans by existing regulations. Additional or revised restrictions for research activities could be adopted as special park regulations.

Indicators are specific, measurable variables reflecting the essence of management objectives and desired future conditions.

Good indicators must be:

1. Specific
2. Related to visitor use
3. Sensitive to visitor use
4. Objective
5. Cost efficient and effective
6. Reliable and repeatable
7. Responsive to management.

Issues of concern largely determine indicators. At Denali National Park and Preserve, concern over the formation of social trails or informal campsites, threatened wildlife, solitude, visitor use conflicts, access, noise from motors, and other issues create the need for indicators. Managers must identify a few indicators that best reflect both the biophysical and social conditions in a management area. For example, impacts from camping encompass a number of concerns. Indicators that could be used to measure campsite condition could include area of bare ground, amount of damaged vegetation, and degree of soil compaction. Indicators used to measure campsite solitude might include the number of other persons camped within sight or sound, or the total number of camping sites in an area.

Depending on the objective or desired conditions of the management area, managers might use different indicators. If solitude is a primary objective, one indicator might be the encounter rate between visitors along trails, campsites, or in entire areas. Since indicators are driven largely by issues identified in the public input phase of a backcountry management plan, it is important that managers select variables that relate to those identified issues.



Photo: Roger Robinson©

The technical literature is rich with potential indicators for monitoring wilderness conditions (Stankey et al. 1985, Whittaker and Shelby 1992, National Park Service 1997). Appropriate indicators and standards would evolve as our understanding of these complex systems increases over time. Based on park purposes, resource and other values, current science and scientific literature, the following indicators are recommended for Denali National Park and Preserve. Denali's managers, however, would work to develop new, more effective indicators and standards as better information becomes available.

Biological and Physical Indicators:

1. Impacts on wildlife behavior and habitat usage
 - number of wildlife species seen by visitors
 - number of bear encounters
 - number of bears or other animals obtaining human food
 - number/days of temporary wildlife closures
2. Degradation of natural environment
 - Number and length of unofficial social trails
 - degree of campsite compaction/impact
 - quantity of litter
3. Degradation of natural soundscape
 - percentage of time motorized noise is audible
 - percentage of area over which motorized intrusions can be heard

Managers establish standards to define minimum acceptable levels of impact as measured by each of the indicators.

- amplitude (loudness) of motorized sounds
- number of motorized sound intrusions heard over time

Potential Social Indicators:

1. Social crowding
 - number of people at one time at a natural attraction
2. Encounter rate
 - number of people seen or heard in backcountry
3. Opportunities for solitude
 - same indicators as for social crowding and encounter rate
4. Visitor conflict
 - number of negative conflicts between users/uses
5. Managerial presence
 - need for signs
 - number of researchers or ranger patrols encountered
 - number of resource violations

Standards

Managers establish standards to define minimum acceptable levels of impact as measured by each of the indicators. Standards are not goals, but thresholds that are the minimum that management should achieve. Through data collection and analysis, it is possible to describe standards that specify the appropriate conditions for each indicator in a particular area (Johnson 1999).

Setting standards relies on the judgment of resource professionals, combined with input from visitors themselves. Standards should not be set at an unattainable level. Rather, they should reflect conditions that managers feel could be achieved over a reasonable time. In some cases, standards might be merely statements of current conditions or designed to achieve modifications toward a more natural state (Hendee et al. 1990). Either way, standards must be absolute limits, not just warnings (Marion 2001).

It is possible that the standards set for an indicator may be shared by more than one area; in that case, the areas would be distinguished by the standards set for other indicators. Although a range of standards is typical, certain conditions may apply park-wide or not change between areas. Examples might be air and water quality, or baseline conditions that must be met in all areas for legal, policy, or regulatory reasons.

Attributes that have been identified as standards useful in measuring indicators include the following (Schoemaker 1984, Whittaker and Shelby 1992, National Park Service 1997). Good standards must be:

1. Expressed quantitatively (since indicators measure variables, standards should be expressed specifically).
2. Bounded in time or space (thus expressing how much of an impact is acceptable and how often, when, or where impacts can occur).
3. Expressed as a probability (allowing managers to account for uncontrollable events such as seasonal variation in visitor use, climatic conditions or unpredictable natural disturbances).
4. Impact oriented (focusing directly on impacts that affect the quality of visitor experience or natural and healthy conditions).
5. Realistic or attainable (reflecting conditions that are realistically achievable within the bounds of political, economic, or social norms).

For standards measuring social indicators, managers typically use an approach that focuses on the degree to which individual visitors can express personal standards of quality and the extent to which visitors agree about such standards (Shelby and Heberlein 1986; Manning 1999).

Additionally, standards should describe a range or logical progression of conditions (Hendee et al. 1990). For example, at Denali managers have already selected “number of encounters” as an indicator of solitude. In a management area such as Denali’s Special Resource Protection Area, the description of desired conditions reads, “There are outstanding opportunities for solitude.” For

Monitoring would provide information to determine if guidelines are being followed, standards are being met, and underlying assumptions are sound. Monitoring may be accomplished through formal research projects.

parts of this area, a standard of three parties per week or less could be prescribed. In other areas, managers could set standards of two other parties per day and so on to provide the range of conditions to be provided to the public.

Standards are often best expressed as probabilities. For example, in Denali's Backcountry a standard for encounters with other groups might be expressed as, "A relatively high number of parties may be encountered, up to 10 parties per day on at least 90% of the days between June 15 and September 15." This acknowledges the fact that the high degree of social and biophysical variability in complex wilderness ecosystems often makes specific absolute standards unachievable.

Specific standards like these would be applied to each unit consistent with its management area designation once this plan is approved.

Indicators and Standards — Summary

Devising useful indicators and standards is one of the most challenging aspects of a backcountry management plan because ecosystems are extremely complex. In formulating indicators and standards, it is important to recognize the limits of our scientific understanding and financial and technical capability to test their viability (*Federal Register* 2000).

Choosing good indicators with measurable standards is crucial because they can largely determine the future character of wilderness (Hendee et al. 1990). Because all designated or suitable wilderness areas are different, no single formula fits all. Rather, wilderness management relies on public input, ongoing research, and managerial experience to guide the process. This can be achieved through adaptive management.

Monitoring

Denali National Park and Preserve is committed to improving the long-term protection of its wilderness resources. Monitoring is an essential component of wilderness resource management because it provides information on the relative success of management strategies. Monitoring would provide information to determine if guidelines are being followed, standards are being met, and underlying assumptions are sound. Monitoring may be accomplished through formal research projects.

Monitoring would be coordinated through the Central Alaska Network Monitoring Program and follow the National Inventory and Monitoring guidelines to enhance the efficiency and usefulness of the results. Denali National Park and Preserve would follow these general principles in implementing a monitoring program:

- Monitoring would integrate information about natural and cultural resources, including weather, air, land, water, soundscape, geoindicators, exotic plants, and other flora and fauna. These broad areas include monitoring for species listed under the Endangered Species Act; and activities subject to the Clean Water Act, Clean Air Act, and National Historic Preservation Act; and other laws, regulations, and policies.
- Monitoring would measure the impacts of actions on park resources as identified in this environmental impact statement.
- Monitoring results would provide managers with the information to determine whether a goal has been met and whether to continue or to modify the management direction.
- Monitoring would be periodically evaluated to ascertain whether the monitoring questions and standards are still relevant and would be adjusted appropriately.
- Some monitoring activities and projects may be discontinued and others added as knowledge and issues change with implementation.

- Monitoring would be conducted at multiple levels and scales.
- Existing and previous monitoring activities would be considered for inclusion in this program if they provide appropriate information and employ appropriate protocols.
- The monitoring program would involve a long-term commitment to gathering and evaluating data.
- Monitoring information would be made available using tools such as Synthesis, Geographic Information Systems Theme Manager, Natural Resources Database template, and interconnected web and distributed databases.

ENDNOTES

¹ An *encounter* is the unaided recognition by sight or sound of another park user. User = subsistence users, sport hunters, pedestrians, people using mechanized transport where allowed, researchers, and park staff. Users do not include aircraft in flight. A “day” = 24 hours, and a “party” is a group of less than 12 people. An encounter rate is the number of parties encountered per day. Although this definition includes subsistence users, management will not restrict subsistence activities to reduce encounter rates to desired conditions.

² *Transient* evidence includes things like footprints that wash away, boat wakes that roll on the beach and are gone, tent sites that recover because they are dispersed or infrequently used, aircraft that fly overhead but soon are out of range, snowmobile or airplane tracks that melt, wash away, or are covered by wind and snow.

³ A *scenic tour* landing is one in which a commercial flightseeing plane makes a landing but does not leave its passengers at the landing area. Scenic tour landings are usually of short duration, allowing enough time for passengers to walk briefly on a glacier and take photographs. An *air taxi* is a commercial flight in which visitors or their equipment are taken to a location and left or picked up. Some of these flights may also have flightseeing passengers aboard who do not remain at the location, but they would still be classified as air taxi flights.

⁴ The National Park Service has begun to purchase and use snowmachines with four-stroke engines for administrative purposes, per the direction of the Interim Plan for Soundscape Management in appendix C.

Table 2-7: Summary Table of Alternatives

Alternative/ Impact Topic	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (NPS preferred)	Alternative E
GENERAL CONCEPT					
	<p>The National Park Service would continue the present management direction, guided by the 1986 <i>General Management Plan</i>, the 1997 <i>Entrance Area Road Corridor Development Concept Plan</i>, the 1997 <i>South Side Denali Development Concept Plan</i>, the 1997 <i>Strategic Plan</i>, and backcountry management plans from 1976 and 1982.</p> <p>Recreational use and access patterns would continue to develop and the agency would respond as necessary on a case-by-case basis. No new services or facilities would be developed to meet increased levels of use in the backcountry, except for those identified in the Entrance Area or South Side plans.</p>	<p>This alternative would emphasize wilderness resource values (including solitude and natural sounds) and opportunities for self-reliant, non-motorized recreation that depend on the wilderness character of the resource. Denali would have a high degree of resource protection, especially in the Old Park. Under this alternative, some uses would be reduced or managed for greater dispersal to enhance resource protection. While some new approved uses could occur, services would be minimized to provide self-reliant experiences. This alternative calls for protecting the wilderness character of the park and preserve by expanding motorized access only after Congress acts on wilderness designation.</p>	<p>This alternative would emphasize highly dispersed recreational uses that are consistent with wilderness values and opportunities for solitude. It would allow for both motorized and non-motorized recreational activities, but would limit growth or otherwise manage use levels to provide a quality visitor experience and protect park resources.</p>	<p>The NPS would provide for expanded recreational opportunities in many areas of the park and preserve for activities that are particularly well suited to the unique character of Denali. Use levels would not exceed those that vision for a particular unit. Patterns and types of use would be somewhat similar to current conditions, but increases in levels of use would be noticeable at several locations.</p>	<p>This alternative would emphasize expanded visitor services, additional facilities, and increased motorized access for backcountry users. A variety of uses would be accommodated throughout the park, and new forms and levels of recreational uses would be allowed in the park additions and preserve. While protecting resources, new facilities would be added in the entrance area and on the south side. There would be some expansion of existing uses in the Old Park, with modest expansion of uses in the park additions and preserve. There would be minimal reductions or redistribution of existing uses even in congested areas. This alternative would allow additional types of use not presently occurring but consistent with laws, regulations, and management policies. As types and levels of use increase, so too would administrative presence.</p>
GENERAL & NON-COMMERCIAL ACTIVITIES					
Overnight Camping	No limitations on overnight camping in units of the park additions or the preserve not presently included in the permit system.	A registration system would be implemented for units in the park additions and preserve not presently included in the permit system.	A registration system would be implemented for units in the park additions and preserve not presently included in the permit system.	A registration system would be implemented for units in the park additions and preserve not presently included in the permit system.	A registration system would be implemented for units in the park additions and preserve not presently included in the permit system.

Alternative/ Impact Topic	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (NPS preferred)	Alternative E
Aircraft Landings – General Aviation	General aviation landings would be allowed throughout the entire park and preserve consistent with the 1986 regulations implementing ANILCA Title XI.	Registration would be mandatory for landings in the park additions or preserve. Aircraft landings would be allowed in Old Park for emergencies and administrative purposes only.	Registration would be voluntary for landings in the park additions or preserve. Aircraft landings would be allowed in Old Park for emergencies and administrative purposes only.	Registration would be voluntary for landings in the park additions or preserve. Aircraft landings would be allowed in Old Park for emergencies and administrative purposes only.	Registration would be voluntary for landings in the park additions or preserve. Units 21, 22, 44, 48 in the Old Park would be open for general aviation landings; pilots would be required to register.
Aircraft Overflights	No action would be taken to manage or limit the impacts of aircraft overflights.	The National Park Service would seek significant reduction in impacts from aircraft noise parkwide by establishing an aircraft overflights working group, which would include scenic air tour operators, commercial airlines, military, and other concerned parties to develop voluntary measures for achieving desired resource conditions at Denali.	The National Park Service would seek moderate reduction in impacts from aircraft noise park wide by establishing an aircraft overflights working group, which would include scenic air tour operators, commercial airlines, military, and other concerned parties to develop voluntary measures for achieving desired resource conditions at Denali.	The National Park Service would seek localized reductions in impacts from aircraft noise by establishing an aircraft overflights working group, which would include scenic air tour operators, commercial airlines, military, and other concerned parties to develop voluntary measures for achieving desired resource conditions at Denali.	The National Park Service would accommodate additional noise intrusions in some areas and protect existing park soundscapes in other areas by establishing an aircraft overflights working group, which would include scenic air tour operators, commercial airlines, military, and other concerned parties to develop voluntary measures for achieving desired resource conditions at Denali.
		Concessions authorizations for commercial airplane landings in the national park and preserve would include incentives for meeting voluntary guidelines for assisting the National Park Service in achieving desired future conditions in all management areas. The National Park Service would reduce the impact of agency flights through improved accountability and application of the minimum tool requirement.	Concessions authorizations for commercial airplane landings in the national park and preserve would include incentives for meeting voluntary guidelines for assisting the National Park Service in achieving desired future conditions in all management areas. The National Park Service would reduce the impact of agency flights through improved accountability and application of the minimum tool requirement.	Concessions authorizations for commercial airplane landings in the national park and preserve would include incentives for meeting voluntary guidelines for assisting the National Park Service in achieving desired future conditions in all management areas. The National Park Service would reduce the impact of agency flights through improved accountability and application of the minimum tool requirement.	Concessions authorizations for commercial airplane landings in the national park and preserve would include incentives for meeting voluntary guidelines for assisting the National Park Service in achieving desired future conditions in all management areas. The National Park Service would reduce the impact of agency flights through improved accountability and application of the minimum tool requirement.

Alternative/ Impact Topic	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (NPS preferred)	Alternative E
Snowmobiles	Use would be managed only through enforcement of existing laws and regulations. No limits on the location or amount of snowmobile use.	The national park additions and preserve would be closed to snowmobiles, except for access to traditional activities, until after Congress acts on wilderness designations.	In addition to allowing snowmobile use for subsistence, wide corridors would be designated in backcountry areas for day-use and overnight snowmobile touring and access. The National Park Service would temporarily mark these corridors during the winter and snowmobile access for recreation would be limited to the marked routes. Other areas would be open for dispersed use. Registration would be required.	In addition to allowing snowmobile use for subsistence, wide corridors would be designated in backcountry areas for day-use and overnight snowmobile touring and access. The National Park Service would temporarily mark these corridors during the winter and snowmobile access for recreation would be limited to the marked routes. Other areas would be open for dispersed use. Registration would be required.	In addition to allowing snowmobile use for subsistence, wide corridors would be designated in backcountry areas for day-use and overnight snowmobile touring and access. The National Park Service would temporarily mark these corridors during the winter and snowmobile access for recreation would be limited to the marked routes. Other areas would be open for dispersed use. Registration would be required.
Motorboats	Motorboats would be able to continue accessing the Old Park, park additions, and preserve using any navigable waterway. No registration requirement.	No motorboats would be allowed in the Old Park. Motorboats allowed for access on the Tokositna, Yentna, Kantishna, Bearpaw, and Muddy Rivers. Registration required for day use.	No motorboats would be allowed in the Old Park. Motorboats allowed for access on the Tokositna, Yentna, Kantishna, Bearpaw, and Muddy Rivers. Registration required for day use.	No motorboats would be allowed in the Old Park. Motorboats would be allowed for access on the Tokositna, Yentna, Kantishna, Bearpaw, and Muddy Rivers and would be allowed on the Toklat River, East Fork Toklat River, and Moose Creek for overnight use only. Registration required for day use.	No motorboats would be allowed in the Old Park. Motorboats would be allowed for access on the Tokositna, Yentna, Kantishna, Bearpaw, and Muddy Rivers and would be allowed on the Toklat River, East Fork Toklat River, Caribou Creek, Glacier Creek, Clearwater, McKinley River, Birch Creek and Moose Creek for overnight use only. Registration required for day use.
Hiking	No limitation on group size. No registration requirement.	Maximum group size for all hiking and backcountry camping would generally be limited to 12. Registration required.	Maximum group size for all hiking and backcountry camping would generally be limited to 12. No registration requirement.	Maximum group size for all hiking and backcountry camping would generally be limited to 12. No registration requirement.	There would be no maximum group size for day hiking. No registration requirement.

Alternative/ Impact Topic	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (NPS preferred)	Alternative E
Climbing and Mountaineering	No limits on numbers of climbers on Mount McKinley or other peaks in the park and preserve. No park policy on the removal of human waste or on the use of climbing equipment such as power drills or anchors.	The number of climbers attempting Mount McKinley would be held at existing levels (1300) for all routes during the main mountaineering season (April 1- August 1). A limit would be established for the number of permits issued each day for the initiation of trips on Mount McKinley. Climbers would be required to remove their human waste from the West Buttress route wherever pit toilets are not provided. Power drills prohibited.	The number of climbers attempting Mount McKinley would be held at existing levels (1300) for all routes during the main mountaineering season (April 1- August 1). There would be no daily limits established. Climbers would be required to remove their human waste from the West Buttress route wherever pit toilets are not provided. Power drills prohibited.	The number of available permits for climbers attempting Mount McKinley would increase to 1500 during the main mountaineering season (April 1- August 1). There would be no daily limits established. Climbers would be required to remove their human waste from the West Buttress route wherever pit toilets are not provided. Power drills prohibited.	There would be no annual or daily limits established for the number of climbers attempting Mount McKinley while the National Park Service gathered additional information on social and resource carrying capacity. Climbers would be required to remove their human waste from the West Buttress route wherever pit toilets are not provided. Power drills prohibited.
Non-Motorized Winter Activities Bicycle Use	No registration requirement. All areas of the Old Park, park additions, and preserve not closed to all entry would continue to be open to bicycle use.	Mandatory registration. Bicycles would continue to be allowed for access to inholdings. Bicycle use would be allowed on constructed mining access routes in the Kantishna Hills and on state right-of-ways. No other bicycle use would be allowed in the backcountry.	Voluntary registration. Bicycles would continue to be allowed for access to inholdings. Bicycle use would be allowed on constructed mining access routes in the Kantishna Hills and on state right-of-ways. No other bicycle use would be allowed in the backcountry.	Voluntary registration. Bicycles would continue to be allowed for access to inholdings. Bicycle use would be allowed on constructed mining access routes in the Kantishna Hills and on state right-of-ways. No other bicycle use would be allowed in the backcountry.	Voluntary registration. Bicycles would continue to be allowed for access to inholdings. Bicycle use would be allowed on constructed mining access routes in the Kantishna Hills and on state right-of-ways. No other bicycle use would be allowed in the backcountry.
Pack Animals	No restrictions on the use of pack animals in the Old Park, park additions, and preserve.	The park would be closed to pack animals except for sled dogs, horses on constructed mining routes in the Kantishna Hills, and dogs being utilized to carry packs in the park additions and preserve.	The park would be closed to pack animals except for sled dogs, horses on constructed mining routes in the Kantishna Hills, and dogs being utilized to carry packs in the park additions and preserve.	The park would be closed to pack animals except for sled dogs, horses on constructed mining routes in the Kantishna Hills, and dogs being utilized to carry packs in the park additions and preserve.	The park would be closed to pack animals except for sled dogs, horses on constructed mining routes in the Kantishna Hills, and dogs being utilized to carry packs in the park additions and preserve.

Alternative/ Impact Topic	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (NPS preferred)	Alternative E
GUIDED ACTIVITIES AND COMMERCIAL SERVICES					
Commercial Airplane Landings	No new requirements or restrictions on the number or type of air taxi or scenic air tour glacier landings. There would also be no new requirements or restrictions on the number of commercial landings by incidental business permit (IBP) holders in the non-glaciated areas of the park additions and preserve. There would be no restrictions on the time of year at which scenic air tour landings could occur at Base Camp. If necessary, the National Park Service would set limits on scenic air tour landings after one-year notice as per existing concession use authorizations.	Air taxi landings allowed in all Natural, Primitive, and Backcountry Areas. Scenic air tour landings could be allowed in Primitive and Backcountry Areas. Each unit under these designations would allow up to 10 scenic air tour landings per year. Landings at established commercial landing areas would not count toward the landing limit for the unit. Established landing areas in the portal areas at the Ruth Amphitheater and Kahitna Base Camp would allow a high level of use for commercial airplane landings greater than the surrounding area. Scenic air tour landings at these areas would not exceed 2001 numbers: 1900 in the Ruth, 200 at Base Camp. The Pika Glacier would not be open to scenic air tour landings. Landings allocated among operators based on proportion of landings 1999-2001. No scenic air tour landings at Kahitna Base Camp before July 1.	Air taxi landings allowed in all Natural, Primitive, and Backcountry Areas. Scenic air tour landings could be allowed in Primitive and Backcountry Areas. Each unit under these designations would allow up to 10 scenic air tour landings per year. Landings at established commercial landing areas would not count toward the landing limit for the unit. Established landing areas in the portal areas at the Ruth Amphitheater and Kahitna Base Camp would allow a high level of use for commercial airplane landings and the landing area in the portal area on the Pika Glacier would allow a moderate level of use for commercial airplane landings greater than the surrounding area. Scenic air tour landings at these landing areas would not exceed 2001 numbers plus 10%: 2100 in the Ruth, 220 at Base Camp, 190 on the Pika. Landings would be allocated among operators based on proportion of landings 1999-2001. There would be no scenic air tour landings at Kahitna Base Camp before July 1.	Air taxi landings allowed in all Natural, Primitive, and Backcountry Areas. Scenic air tour landings could be allowed in Primitive and Backcountry Areas with contract provisions to achieve desired resource conditions. The National Park Service would work with concession operators to develop these provisions, which would be included in future commercial use authorizations. The National Park Service would also conduct visitor capacity studies in high use areas. Established landing areas in the portal areas at the Ruth Amphitheater, Kahitna Base Camp, and Pika Glacier would allow for higher levels of scenic air tour use than would be true of the surrounding management area. There would be no prohibition on scenic air tour landings at Kahitna Base Camp during climbing season.	Air taxi landings would be allowed in all Natural, Primitive, and Backcountry Areas. Scenic air tour landings could be allowed in Primitive and Backcountry Areas with contract provisions to achieve desired resource conditions. The National Park Service would work with concession operators to develop these provisions, which would be included in future commercial use authorizations. The National Park Service would also conduct visitor capacity studies in high use areas. Established landing areas in the portal areas at the Ruth Amphitheater, Kahitna Base Camp, and Pika Glacier would allow for higher levels of scenic air tour use than would be true of the surrounding management area. There would be no prohibition on scenic air tour landings at Kahitna Base Camp during climbing season.

Alternative/ Impact Topic	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (NPS preferred)	Alternative E
Guided Hiking	Existing guided hiking activities would continue to be available. No additional entities would be able to offer guided hikes in the park.	Of commercial operators, only those with historic rights for guided hiking in the Old Park would be allowed to lead guided hikes in the Old Park Special Resource Area. Other operators authorized for guided hiking would be restricted to the areas of the park they presently use.	Existing commercial guided hiking activities in the Old Park, Kantishna Hills, and Dunkle Hills would continue at the same level and in the same places as they presently occur. In addition to the concession-permitted hikes and National Park Service Discovery Hikes, the Denali Science and Learning Center would offer a variety of programs within the Old Park and Kantishna Hills area of the park additions for which backcountry travel would be by foot. These programs could include day trips, overnight expeditions, and field camps.	Existing commercial guided hiking activities in the Old Park, Kantishna Hills, and Dunkle Hills would continue at the same level and in the same places as they presently occur. Guided activities by commercial businesses that are incidental to an authorized frontcountry activity (e.g. traveling the park road to access inholdings) could be authorized but would be restricted to the park road and developed trails. In addition to the concession-permitted hikes and National Park Service Discovery Hikes, the Denali Science and Learning Center would offer a variety of programs within the Old Park and Kantishna Hills area of the park additions for which backcountry travel would be by foot. These programs could include day trips, overnight expeditions, and field camps.	Existing commercial guided hiking activities in the Old Park, Kantishna Hills, and Dunkle Hills would continue at the same level and in the same places as they presently occur. Guided activities by commercial businesses that are incidental to an authorized frontcountry activity (e.g. traveling the park road to access inholdings) could be authorized but would be restricted to the park road and developed trails. In addition to the concession-permitted hikes and National Park Service Discovery Hikes, the Denali Science and Learning Center would offer a variety of programs within the Old Park and Kantishna Hills area of the park additions for which backcountry travel would be by foot. These programs could include day trips, overnight expeditions, and field camps.
Commercial Bicycle Touring	There would be no commercial use of bicycles in the park backcountry.	There would be no commercial use of bicycles in the park backcountry.	There would be no commercial use of bicycles in the park backcountry.	Kantishna lodges could be authorized to provide guided bicycle day trips for their guests on constructed mining access routes in the Kantishna Hills.	Kantishna lodges could be authorized to provide guided bicycle day trips for their guests on constructed mining access routes in the Kantishna Hills.
Guided Sport Hunting	There would be no change to hunting guide areas.	There would be no change to hunting guide areas.	There would be no change to hunting guide areas.	The National Park Service would expand the two existing guide areas to encompass all of the southwest preserve.	A total of three guide areas would be evenly proportioned across the entire southwest preserve. One guide area would be added in the southern portion of the northwest preserve.

Alternative/ Impact Topic	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (NPS preferred)	Alternative E
FACILITIES					
Trails	No new trails or routes. The National Park Service would not participate in the development of a statewide snowmobile trail system. The park road would remain unplowed until necessary for the summer season.	No new trails or routes. The National Park Service would not participate in the development of a statewide snowmobile trail system. The park road would remain unplowed until necessary for the summer season.	The National Park Service would temporarily mark some snowmobile routes in areas designated for concentrated snowmobile use; plan for connecting statewide trail systems and for improved parking along the Parks Highway; and designate and brush ski trails in the entrance area. The park road would remain unplowed until necessary for the summer season.	The National Park Service would temporarily mark several snowmobile routes in areas designated for concentrated snowmobile use; plan for connecting statewide trail systems and for improved parking along the Parks Highway; and designate and brush ski trails in the entrance area. During winter months park maintenance crews would pack snow on the eastbound lane of the park road to mile 7 as needed. They would leave undisturbed snow for dog sleds and unplowed snow in the westbound lane for ski tracks. If there were sufficient snow on the spring trail from Headquarters for safe travel by ski, skijor, and dog sled by March 1, the road would be plowed to Savage Campground. Otherwise, the park road would remain unplowed until necessary for the summer season. The National Park Service would construct a loop trail from Eielson Visitor Center to Gorge Creek and a loop trail from the water tower at Wonder Lake Campground to the bench west of Wonder Lake.	The National Park Service would temporarily mark and groom approximately 17.8 miles of snowmobile trails in areas designated for concentrated snowmobile use; temporarily mark several snowmobile routes in areas designated for concentrated snowmobile use; plan for connecting statewide trail systems and for improved parking along the Parks Highway; and designate and brush ski trails in the entrance area. Trail grooming would be done in the most commonly used areas along the accessible portions of the park road. The spring multi-use trail would be upgraded and extended from Mile 7 to Savage Campground. The park road would be plowed to Savage Campground throughout the winter. The National Park Service would construct a loop trail from Eielson Visitor Center to Gorge Creek, a loop trail from the water tower at Wonder Lake Campground to the bench west of Wonder Lake, and a trail from the west end of the Thorofare Bluffs to the

Alternative/ Impact Topic	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (NPS preferred)	Alternative E
Information Facilities, Shelters, and Campsites	There would be no new information facilities, shelters, or backcountry campsites.	There would be no new information facilities, shelters, or backcountry campsites.	The National Park Service, in cooperation with other land management agencies, would operate a public lands information center in the Cantwell/Broad Pass area and would add visitor facilities at park headquarters such as restrooms, plug-ins, and a warming hut to support winter use.	The National Park Service, in cooperation with other land management agencies, would operate a public lands information center in the Cantwell/Broad Pass area and would add facilities along the first few miles of the park road to support winter use. These facilities would include restrooms, plug-ins, and a warming hut at park headquarters, and a day use warming shelter (wall tent) at Mile 7.	<p>Thorofare River bar. An additional length of trail would be added to the one that will traverse the slope north of Eielson Visitor Center (1997 Entrance Area and Road Corridor DCP). A 10-mile loop trail near the southern boundary of the Little Switzerland unit (#79) would also be constructed.</p> <p>The National Park Service, in cooperation with other land management agencies, would operate a public lands information center in the Cantwell/Broad Pass area and would add facilities along the first few miles of the park road to support winter use.</p> <p>The park road would be kept open to the Savage Campground area throughout the year. The National Park Service would add facilities along this section of the park road corridor to support winter use. These facilities would include restrooms, plug-ins, and a warming hut at park headquarters, and day use warming shelter (wall tent) at Mile 7 and Savage Campground.</p> <p>NPS would propose construction of public use cabins on state land along the southern boundary of the park in cooperation with Alaska State Parks.</p>

Alternative/ Impact Topic	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (NPS preferred)	Alternative E
					Up to three designated campsites could be established in the lower elevations of the Little Switzerland unit (#79). The National Park Service would allow for facilities for onsite air traffic management in the Ruth Amphitheater similar to what exists at Kahitna Base Camp.
ADMINISTRATION					
National Park Service Administration and Research	<p>Year-to-year operational decisions would continue to guide administrative presence in the backcountry.</p> <p>A permit system for all research and other scientific uses would continue to apply.</p>	<p>Backcountry patrols by ground and air would be reduced from existing levels.</p> <p>Research projects would be limited to resource studies necessary for effective park management.</p>	<p>Backcountry patrols by ground and air would remain at the same frequency as at present.</p> <p>Research projects in the Old Park Special Resource Area would be limited to resource studies necessary for effective park management. Research projects could be permitted if they are part of national governmental research initiatives.</p>	<p>The National Park Service would maintain the current level of ground and air backcountry patrol presence in the Old Park Special Resource Area, with a modest increase in the park additions and preserve.</p> <p>Research projects would be limited to resource studies necessary for effective park management and projects that are part of national governmental research initiatives.</p>	<p>Administrative presence in the backcountry would increase.</p> <p>The National Park Service would encourage a wide variety of research activities within the park.</p>
EASEMENTS AND BOUNDARY CHANGES					
Easements	The National Park Service would not seek to gain public access to the 17(b) easement (EIN 7a C5, DI, L) that provides a route across Ahtna, Inc. land from Cantwell to the park boundary.	The National Park Service would initiate collaborative action with concerned and affected parties in the Cantwell area to gain public access to the 17(b) easement (EIN 7a C5, DI, L) that provides a route across Ahtna, Inc. land from Cantwell to the park boundary near Windy Creek.	The National Park Service would initiate collaborative action with concerned and affected parties in the Cantwell area to gain public access to the 17(b) easement (EIN 7a C5, DI, L) that provides a route across Ahtna, Inc. land from Cantwell to the park boundary near Windy Creek.	The National Park Service would initiate collaborative action with concerned and affected parties in the Cantwell area to gain public access to the 17(b) easement (EIN 7a C5, DI, L) that provides a route across Ahtna, Inc. land from Cantwell to the park boundary near Windy Creek.	The National Park Service would initiate collaborative action with concerned and affected parties in the Cantwell area to gain public access to the 17(b) easement (EIN 7a C5, DI, L) that provides a route across Ahtna, Inc. land from Cantwell to the park boundary near Windy Creek.

Alternative/ Impact Topic	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (NPS preferred)	Alternative E
Land Exchanges	The National Park Service would not consider any exchanges of land.	The National Park Service would pursue a land exchange similar to a previously proposed exchange of land with the State of Alaska that would realign the park boundary with the Tokositna, Coffee, and Ruth Rivers.	The National Park Service would pursue a land exchange similar to a previously proposed exchange of land with the State of Alaska that would realign the park boundary with the Tokositna, Coffee, and Ruth Rivers.	The National Park Service would pursue a land exchange similar to a previously proposed exchange of land with the State of Alaska that would realign the park boundary with the Tokositna, Coffee, and Ruth Rivers.	The National Park Service would pursue a land exchange similar to a previously proposed exchange of land with the State of Alaska that would realign the park boundary with the Tokositna, Coffee, and Ruth Rivers.
WILDERNESS SUITABILITY					
Wilderness Suitability	The National Park Service would not reevaluate lands in the park additions and preserve.	All lands in the park additions and preserve would be reevaluated.	The National Park Service would not reevaluate lands in the park additions and preserve.	The National Park Service would not reevaluate lands in the park additions and preserve.	The National Park Service would not reevaluate lands in the park additions and preserve.

Table 2-8: Impacts Summary

Alternative/ Impact Topic	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Proposed Action)	Alternative E
Physical Resources (soils, air and water quality)	Most impacts would be concentrated in high-use areas and at backcountry access points along the park road, which currently are small compared to the total area of the park. Lack of planning for recreational activities, however, would result in more frequent, intense, and widespread disturbances to soil, water quality, and air quality in the future that potentially would cause moderate levels of impact on physical resources in localized areas and moderate impacts overall.	Impacts to soil would be minor because high-use areas along the park road and Kantishna (where impacts would be greatest) are relatively small in proportion to the total area of the park. Throughout the rest of the park, visitor use levels would be low due to the limited permit system and management area prescriptions, so impacts to soils would be negligible because of the low frequency and extent of the recreational activities. Impacts to water and air quality would be negligible throughout the park because of low use levels.	Impacts on soils would be minor (with few moderate impacts at high use locations) because the level of impacts from hiking and from snowmobile use would be very limited. The emphasis on dispersed recreation would result in negligible to minor overall impacts on air and water quality.	Soil impacts would be minor because impacts from hiking and from snowmobiles would be limited in extent. In high use areas, such as snowmobile corridors and hiking access points, impacts to soils would be minimal to moderate. Impacts to water and air quality in most of the park would be negligible because of low and dispersed use.	Increased motorized access, construction of new facilities, expanded hiking and overnight use, additional trails and campsites on the south side, and generally higher levels of recreational use would contribute to increased surface disturbances, especially near common access points and at campsites. Impacts to soils would be moderate in localized areas and minor to moderate overall. Impacts to air and water quality would be minor, with moderate impacts occurring locally.
Vegetation and Wetlands	Moderate to major impacts to vegetation and wetlands would result from expanded recreational activities throughout the park and preserve, especially from the introduction of invasive species from livestock use (in the southwest preserve), damage to vegetation from snowmobiles and trampling of vegetation by hikers at popular visitor destinations such as the Broad Pass and upper Tokositna areas. The impact would be moderate to major because damage to vegetation from hiking, camping, snowmobile use, dog mushing, and mountain biking would result in long-term changes (that may be either subtle or intense) to vegetation or wetlands.	Impacts would be negligible. The limited permit system would reduce or cap visitor numbers across the entire park. Areas that would otherwise be heavily used (such as from snowmobile use in the Broad Pass and Tokositna areas) would receive lower levels of use, so impacts would be significantly reduced as compared to the no-action alternative.	There would be negligible to minor negative impacts on vegetation and wetlands. Disturbance would occur at access points (such as social trail formation in the Old Park from hikers) and along snowmobile corridors, but the affected area would be small when compared to the rest of the park. Mountain bikes would only be used on established routes, and the limited permit system would cap all overnight uses throughout the park.	Impacts to vegetation and wetlands would be minor to moderate. Disturbance associated with vegetation impacts would be confined to specific areas (such as corridors for snowmobile use and access points for hiking), and active management would be used to reduce potential impacts to vegetation from some activities (such as snowmobile use). Mountain bikes would only be used on established routes, and the limited permit system would cap all overnight uses throughout the park.	There would be moderate negative impacts to vegetation and wetlands (with the most severe impacts occurring at access points and along snowmobile corridors) due to increases in both winter and summer recreational activities across many parts of the park and preserve. Moderate impacts from hiking would occur throughout the park, with social trail formation occurring near access points and in areas zoned as Backcountry, and with the construction of new trails to provide for expanded visitor opportunities. Snowmobile use would be widespread, with the greatest impacts occurring throughout large corridors. At least six new trails would be constructed, with a moderate impact on wetlands. Because long-term impacts would occur in many local places, overall impacts would be moderate.

Alternative/ Impact Topic	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Proposed Action)	Alternative E
Wildlife and Fish	Wildlife would be negatively affected in some areas of the park during summer from noise generated by aircraft operations and by human activities in the park such as hiking and camping. During winter, wildlife would be affected primarily by snowmobile use and to a much lesser extent by nonmotorized activities. These impacts would affect wildlife in areas such as under flight corridors between Healy, Talkeetna, and Mt. McKinley; at landing sites; and at access points and routes and areas heavily used by snowmobiles on the south side. The overall level of impact would be moderate. Other activities in the park would have negligible to minor impacts on fish and wildlife populations.	The impacts to wildlife and fish populations and habitats would generally be negligible because of limits on numbers and types of backcountry uses. Minor impacts are possible from activities such as increased bicycle use, but even then would be limited to short-term effects that would be very localized in scope.	The impacts to wildlife and fish populations and habitats would generally be negligible to minor because of limits on types and levels of backcountry uses. Minor impacts are possible from activities such as snowmobile use in the park additions and preserve, and hiking and camping. However, these impacts would generally be limited to short-term effects that would affect a few specific places.	The impacts to wildlife and fish populations and habitats would be minor for most activities. Impacts would generally be limited to short-term effects that, although affecting several different places, would not be widespread.	The impacts to wildlife and fish populations and habitats would be minor to moderate for most activities, with most impacts resulting from widespread snowmobile use in the park additions and preserve. Major impacts to wildlife species and wildlife habitat are likely as a result of cumulative impacts.
Natural Soundscape	There would be major adverse impacts to the natural soundscape from the noise of airplane overflights and landings that would affect much of the park and preserve. There would be moderate adverse impacts on the natural soundscape from snowmobile use, other visitor activities that require access by air taxi, and from administrative activity that uses aircraft for access. There would be a moderate impact from administrative actions, including research. Minor impacts would result from any increase in use of motorboats in the park. Under this alternative the soundscape resource would be impaired because in	The natural soundscape would receive a major benefit from the reduction in air traffic related to flightseeing and a moderate benefit from the reduction in snowmobile use and changes in administrative activity, counterbalanced by a minor adverse impact from increases in air taxi traffic. Overall there would be a moderate to major benefit to the natural soundscape because the park and preserve would have fewer noise intrusions under this alternative, and visitors would have a greater chance to experience an undisturbed natural soundscape.	Most visitor activities would have negligible impacts; however, there would be moderate benefits to the natural soundscape during summer months from reduced administrative use of noise-making equipment and a reduction in the rate of occurrence and percent time audible of aircraft noise. During late winter months there would be minor adverse impacts from snowmobile noise during the lifetime of the plan. In almost all of the park and preserve, winter and summer visitors would be able to appreciate undisturbed natural sounds for the vast majority of their visit.	The allowed increases in overnight camping (and thus air taxis), snowmobile use, motorboat access, and administrative and research activity would likely result in moderate adverse impacts on the natural soundscape overall. There would be moderate beneficial impacts from better management of aircraft noise.	Actions under this alternative generally result in adverse impacts to the natural soundscape. Allowable levels of overnight camping and mountaineering would create minor adverse impacts. Motorboat usage, facility construction and management, administrative activities, and research would all cause moderate adverse impacts. Impacts from snowmobiles would be moderate to major. Meanwhile the actions for managing aircraft would result in no net impact compared to current conditions. Overall there would be moderate to major adverse impacts on natural soundscape.

Alternative/ Impact Topic	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Proposed Action)	Alternative E
	many places in the park and preserve aircraft noise would be audible so often that it would effectively remove the opportunity for visitors on the ground to appreciate a natural soundscape.				
Wilderness	<p>There would be major adverse impacts to the wilderness character. Impacts of varying severity are already occurring from aircraft overflights and landings, snowmobile use, guided hiking, and climbing activities on Mount McKinley. These impacts would worsen if left unattended. If no management action occurs there may be future impacts from the use of motorboats, pack animals, bicycles, and expansion of hiking, camping, and climbing in parts of the park additions. Most of the anticipated impacts relate to deterioration of natural sound conditions, the presence of reminders of human civilization, such as motorized and mechanized equipment, encounters with other people and large groups of people, and signs of human presence, such as social trails, campsites, and human waste. These impacts are often modest, but for some activities – particularly aircraft use – moderate to major impacts could affect large portions of the park and impair the park's wilderness character so that future generations would not be able to find the wilderness experience envisioned in ANILCA and the Wilderness Act.</p>	<p>The wilderness character of the backcountry would receive a moderate benefit under this alternative because of elimination of some noise and signs of human presence in the form of aircraft, snowmobiles, and administrative presence, and because of the removal of human waste from Mount McKinley. The reduction in guided hiking around Wonder Lake and the temporal dispersing of mountaineering parties on Mount McKinley would have minor beneficial impacts on wilderness character because there would be fewer signs of human presence in these areas.</p>	<p>The impact to the wilderness character of the park additions and preserve would be mixed under this alternative. There would be an overall minor to moderate benefit for the designated Wilderness because the management of aircraft, the exclusion of motorboats, and the more careful management of research and administrative presence would lead to fewer reminders of civilization in the backcountry of the Old Park Special Resource Area. However, there would be minor adverse impacts primarily in the park additions and preserve from small increases in noise, signs of human presence, and reminders of civilization related to allowable increases in overnight camping, snowmobile use, motorboat use, and route marking.</p>	<p>Actions in this alternative would have some minor benefits to wilderness character at Denali, primarily through management of aircraft overflights to reduce noise, and the reduction of waste, noise, and other signs of human presence in mountaineering areas. Overall there would be minor to moderate adverse impacts from increasing noise, reminders of human presence from activities related to increased overnight camping, snowmobile and motorboat use, and the construction of new backcountry facilities and the maintenance of those facilities.</p>	<p>Actions in this alternative would primarily have moderate to major adverse impacts on the wilderness character of the Denali backcountry. Increases in the level of activity and particularly motorized activity would bring with it increases in noise from motors and reminders of civilization, such as mechanized devices, along with declines in opportunities for isolation and to see a landscape that shows no sign of human presence. Actions related to overnight camping, mountaineering, hiking, and facilities development would also cause minor to moderate impacts on the wilderness character of the park and preserve. The impacts would be parkwide affecting both designated and suitable wilderness, although changes in some activities (such as snowmobile riding) would apply only to suitable wilderness in the park additions and preserve, where the most severe impacts would generally be noticed.</p>

Alternative/ Impact Topic	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Proposed Action)	Alternative E
Cultural Resources	Impacts to cultural resources from the no-action alternative would be moderate, resulting from larger numbers of visitors in areas where cultural resources exist.	Impacts to cultural resources under this alternative would be negligible because limits on activities would be phased in and because additional information and education would be provided. This would be the case throughout the time in which the plan is in effect.	Actions would result in negligible adverse impacts to cultural resources in some cases because limits on activities would be phased in. Actions would result in minor benefits in other cases because additional information and education would be provided. This would be the case throughout the life of the plan.	Actions would result in negligible to minor adverse impacts to cultural resources in some cases because limits on activities would be phased in. Minor benefits would result in other cases because additional information and education would be provided. This would be the case throughout the life of the plan.	Impacts would be minor because some actions, such as widespread snowmobile access and significantly increasing day use hiking would result in a substantial increase in the number of visitors to areas in which cultural resources exist. Where additional visitor use would occur, improved information and education about resource protection, including cultural resources, would be provided; this would help reduce the risk of damage to cultural resources. In those infrequent cases where damage did occur, it would result in an irretrievable loss of some cultural resources, some of which are unique to Denali and to Alaska, but the overall risk of this outcome is believed to be low.
Socioeconomics	Backcountry use would likely increase at a faster rate than overall visitation and would account for some of the growth in income for existing businesses over the next several years. There would also be more opportunities for new businesses to be initiated as a result of anticipated minor to moderate increases in recreational use levels. Alternative A would contribute to increased employment opportunities and income levels, commensurate with the levels of increases of recreational use, for concessioners and other recreation-oriented businesses near Denali National Park and Preserve. Increasing backcountry use	Despite some potential reductions in recreational use at some locations within the park, alternative B would contribute slightly to increases in income for most existing businesses throughout the life of the plan. The overall number of backcountry users would increase, although it would be a smaller percentage of total park visitation. There would be some potential opportunities for new businesses to be initiated as a result of anticipated minor increases in recreational use levels in the park. These changes would also lead to increased employment opportunities and income levels, commensurate with the levels of increases of recreational use, for concessioners and other recreation-oriented businesses near Denali National Park and Preserve.	Because of steady increases in a wide variety of recreational uses throughout the park and preserve, alternative C would result in minor increases in income for many existing businesses over the next several years. There would be potential opportunities for new businesses to be initiated as a result of anticipated increases in recreational use levels in the park. These changes would also lead to increased employment opportunities and income levels, commensurate with the levels of increases of recreational use, for concessioners and other recreation-oriented businesses near Denali National Park and Preserve.	Because of steady increases in a wide variety of recreational uses throughout the park and preserve, alternative D would result in moderate increases in income for many existing businesses throughout the life of the plan. There would be increasing opportunities for new businesses to be initiated as a result of anticipated growth in recreational use levels in the park. These changes would also lead to increased employment opportunities and income levels, commensurate with the levels of increases of recreational use, for concessioners and other recreation-oriented businesses near Denali	Because of continued increases in a wide variety of recreational uses throughout the park and preserve, alternative E would result in moderate increases in income for many existing businesses throughout the life of the plan and major increases in some cases. There would be numerous opportunities for starting new businesses as a result of anticipated growth in recreational use levels in the park. These changes would also lead to increased employment opportunities and income levels, commensurate with the levels of increased recreational use, for concessioners and other recreation-oriented businesses near Denali

Alternative/ Impact Topic	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Proposed Action)	Alternative E
	<p>under alternative A would also contribute to the overall increase in economic activity, a slight increase in population, the need for additional housing and public services, and a moderate reduction in the current rural quality of life in communities near the park and preserve.</p> <p>Impacts to existence values would increase eventually, while use values would tend to increase over the next several years with some reduction likely in the long term. Impacts to the value of Denali National Park and Preserve for ecosystem services would be minor initially and increase to moderate over the next several years as higher levels of use occur at popular destinations.</p>	<p>use, for concessioners and other recreation-oriented businesses near Denali National Park and Preserve. The contributions of alternative B to increased economic activity in the park vicinity would result in negligible increases in population and the need for additional housing and public services. The existing rural quality of life in communities near the park and preserve could be expected to continue.</p> <p>Existence values would be protected and could increase eventually, as would use values for most activities. A moderate increase in the value of Denali National Park and Preserve for ecosystem services could be expected throughout the life of the plan.</p>	<p>The increase in economic activity would result in minor increases in population and the need for additional housing and public services. The existing rural quality of life in communities near the park and preserve could be expected to continue.</p>	<p>National Park and Preserve. The increase in economic activity would result in minor increases in population and the need for additional housing and public services. Minor impacts to the rural quality of life in communities near the park and preserve could be expected over the life span of the plan.</p>	<p>National Park and Preserve. The increase in economic activity would result in moderate increases in population and the need for additional housing and public services. Moderate impacts to the rural quality of life in communities near the park and preserve could be expected for the life of the plan.</p>
Recreational Opportunities and Visitor Experience	<p>Visitor use patterns would be established on a first-come first served basis. This would result in adverse impacts to user groups who arrive later into an area. Overall, there would be major adverse impacts on visitor experience and moderate adverse impacts on visitor safety and the availability of diverse regional recreational opportunities.</p>	<p>The backcountry would become more specialized in providing wilderness-dependent recreational activities, especially for non-motorized users. While this management framework would not allow the full breadth of outdoor recreation activities in the park, the focus on wilderness-dependent recreation would enhance the diversity of recreational opportunities in the region, benefit the user experience especially for non-motorized users, and improve visitor safety throughout the park additions and preserve. Non-motorized users would receive moderate benefits overall while those relying</p>	<p>There would be minor to moderate positive impacts on visitor experience and opportunity under this alternative. The experience of wilderness users would improve from the elimination of some aircraft noise and human waste. Safety would improve through better education for visitors in the park additions. Wilderness-dependent recreational opportunities for visitors using both motorized and non-motorized means of access would be enhanced.</p>	<p>There would be minor to moderate positive impacts on visitor experience and opportunity under this alternative. The experience of wilderness users would improve from the elimination of some aircraft noise and human waste. Safety would improve through better education for visitors in the park additions. Wilderness-dependent recreational opportunities for visitors using both motorized and non-motorized means of access would be enhanced.</p>	<p>There would be major positive impacts on visitor experience and opportunity for visitors using motorized means for access to and use of the backcountry because new facilities and management actions would provide for greater use. There would be minor adverse impacts to non-motorized users, including those who access wilderness recreation by motorized means, because much of the park additions and preserve would be affected by widespread motorized use over the long term. Safety would improve through better education and information for visitors in the park additions, but there would not be</p>

Alternative/ Impact Topic	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Proposed Action)	Alternative E
Park Operations and Management	Overall impacts include increased search and rescue costs and problems resulting from the lack of adequate resource and visitor information. Without a comprehensive backcountry management plan, these impacts could be expected to increase. The no-action alternative would therefore result in major negative impacts to park operations and management in the 10-15 years that the backcountry management plan is expected to be in effect.	There would be some requirements for additional staff, but most proposals could be implemented by reassigning existing staff and changing management emphasis or priorities during the first 5 years of plan implementation. Although moderate impacts to park operations and management would be realized in some areas, other actions include mitigation and even beneficial effects that would occur throughout the life of the plan. The overall impacts to park management under actions from alternative B would be negligible.	While there would need to be increases in park staff and funding to manage greater use and additional facilities, proactive management would negate the need for a reactive (and thus, a more costly and effort-intensive) approach to management. Implementing actions under alternative C would cause moderate impacts to park operations and management in some areas during 5-10 years of plan implementation, but other actions include mitigation and even beneficial effects that would occur throughout the life of the plan. Therefore, overall impacts to park management would be moderate.	While there would need to be increases in park staff and funding to manage increased use and additional facilities, proactive management would negate the need for a reactive (and thus, a more costly and effort-intensive) approach to management. Moderate impacts to park operations and management would be realized in several areas during 5-10 years of plan implementation. Other actions would include mitigation and even beneficial effects that would occur throughout the life of the plan. Because of this balancing effect and the fact that moderate impacts would generally be reduced once the plan was implemented fully, overall impacts to park management would be moderate.	Improved safety for backcountry users in congested areas, especially at popular airplane landing destinations. Implementing alternative E would require a substantial increase in staffing to provide for a major increase in visitor use and visitor services while also preventing impairment of park resources and values. In some cases, proactive management would negate the need for a reactive (and thus, a more costly and effort-intensive) approach to management. Moderate to major impacts would be realized in many areas during the 5-10 years of plan implementation and throughout the life of the plan. Other actions would include mitigation and even beneficial effects that would occur throughout the life of the plan. Despite the balancing effect and the fact that some impacts would be reduced once the plan was implemented fully, other major impacts would persist throughout the life of the plan as described above.